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TECH CENTER 1600/2900

F/G.1

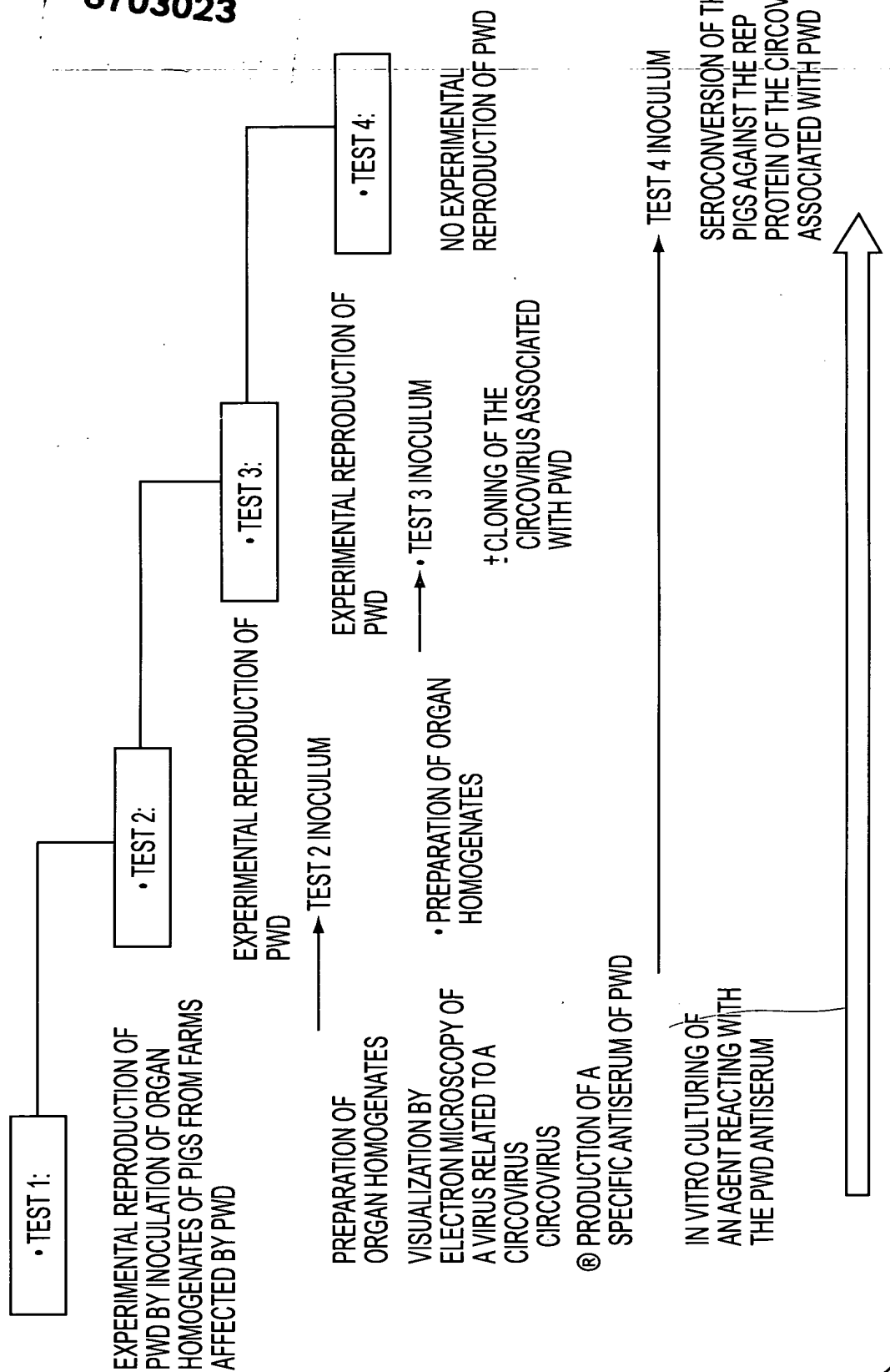
Title: CIRCOVIRUS SEQUENCES ASSOCIATED WITH PIGLETS WEIGHT LOSS DISEASE (PWLD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

**6703023**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN	424	204.1





Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PLEIET  
WEIGHT LOSS DISEASE (PLWD)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

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Leu Ala Ser Arg Cys Arg Cys Cys Arg Pro Leu Thr Leu Ser Phe Ala Leu Cys  
Trp Arg Val Glu Ala Ala Ala Gly Arg Cys Arg \*\*\* His Phe His Trp Ala  
Gly Ala Cys Lys Pro Leu Pro Leu Val Glu Ala Ala Asp Thr Phe Ile Gly Leu

3' TGG TCG CGT GAA GCC GTC GCC GTC GTG GAG CCG TCG CAG TCA CTT TTA CGG TTC  
9 18 27 36 45 54  
5' ACC AGC GCA CTT CGG CAG CGG CAG CAC CTC GGC AGC GTC AGT GAA AAT GCC AAG

Thr Ser Ala Leu Arg Gln Arg Gln His Leu Gly Ser Val Ser Glu Asn Ala Lys  
Pro Ala His Phe Gly Ser Gly Ser Thr Ser Ala Ala Ser Val Lys Met Pro Ser  
Gln Arg Thr Ser Ala Ala Ala Ala Pro Arg Gln Arg Gln \*\*\* Lys Cys Gln Ala

Ser Phe Arg Gly Ala Val Gly Tyr Ser Thr Pro Thr \*\*\* Gly \*\*\* Tyr Asp Lys  
Leu Phe Ala Ala Arg Leu Gly Met Leu Pro Pro His Glu Gly Lys Ile Ile Arg  
Leu Phe Leu Pro Gly Cys Gly Trp Leu Leu His Thr Asn Val Arg Leu Leu Gly

GTT CTT TTC GCC GGG CGT TGG GGT ATT CTC CAC CCA CAA GTG GGA ATT ATT AGG  
63 72 81 90 99 108  
CAA GAA AAG CGG CCC GCA ACC CCA TAA GAG GTG GGT GTT CAC CCT TAA TAA TCC

Gln Glu Lys Arg Pro Ala Thr Pro \*\*\* Glu Val Gly Val His Pro \*\*\* \*\*\* Ser  
Lys Lys Ser Gly Pro Gln Pro His Lys Arg Trp Val Phe Thr Leu Asn Asn Pro  
Arg Lys Ala Ala Arg Asn Pro Ile Arg Gly Gly Cys Ser Pro Leu Ile Ile Leu

Arg Pro Pro Ser Phe Cys Phe Val Pro Ala Glu Leu Arg Gly Lys Gln Asn Asn  
Gly Leu Leu Leu Phe Val Phe Tyr Pro Leu Lys Trp Asp Gly Lys Lys Ile Ile  
Glu Ser Ser Ser Phe Phe Leu Ile Arg Ser Ser Gly Ile Glu Arg Lys Ser \*\*\*

AAG GCT CCT CCT CTT TTT GTT TTA TGC CCT CGA AGG TTA GAG GGA AAA ACT AAT  
117 126 135 144 153 162  
TTC CGA GGA GGA GAA AAA CAA AAT ACG GGA GCT TCC AAT CTC CCT TTT TGA TTA

Phe Arg Gly Gly Glu Lys Gln Asn Thr Gly Ala Ser Asn Leu Pro Phe \*\*\* Leu  
Ser Glu Glu Glu Lys Asn Lys Ile Arg Glu Leu Pro Ile Ser Leu Phe Asp Tyr  
Pro Arg Arg Arg Lys Thr Lys Tyr Gly Ser Phe Gln Ser Pro Phe Leu Ile Ile

Gln Lys His Arg Pro Leu Asn Pro Leu Pro Tyr Phe Glu Glu Gly Gly Pro Thr  
Lys Asn Thr Ala Leu Phe Thr Gln Phe Leu Thr Ser Ser Arg Val Glu Leu Pro  
Lys Thr Gln Pro Ser Ser Pro Lys Ser Ser Pro Leu Val Gly \*\*\* Arg Trp Pro

AAA ACA AAC ACC GCT CCT TCC AAA CCT TCT CCC ATC TTG AGG AGT GGA GGT CCC  
171 180 189 198 207 216  
TTT TGT TTG TGG CGA GGA AGG TTT GGA AGA GGG TAG AAC TCC TCA CCT CCA GGG

Phe Cys Leu Trp Arg Gly Arg Phe Gly Arg Gly \*\*\* Asn Ser Ser Pro Pro Gly  
Phe Val Cys Gly Glu Glu Gly Leu Glu Glu Gly Arg Thr Pro His Leu Gln Gly  
Leu Phe Val Ala Arg Lys Val Trp Lys Arg Val Glu Leu Leu Thr Ser Arg Gly

Gln Ser Asn Gln \*\*\* Ser Ala Ser Lys \*\*\* Cys Pro Ser Thr Thr Asn Gln His  
Lys Arg Ile Lys Ser Leu Leu Leu Ser Lys Val Leu His Leu Pro Ile Lys Thr  
Asn Ala Phe Lys Ala Leu Phe Cys Val Lys Leu Leu Thr Phe His Tyr Lys Pro

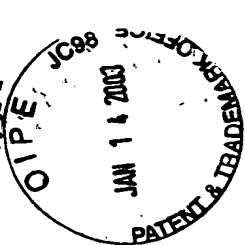
CAA ACG CTT AAA ACG ATT CTT CGT CTG AAA ATT GTT CCA CTT CAC CAT AAA ACC  
225 234 243 252 261 270  
GTT TGC GAA TTT TGC TAA GAA GCA GAC TTT TAA CAA GGT GAA GTG CTA TTT TGG

Val Cys Glu Phe Cys \*\*\* Glu Ala Asp Phe \*\*\* Gln Gly Glu Val Val Phe Trp  
Phe Ala Asn Phe Ala Lys Lys Gln Thr Phe Asn Lys Val Lys Trp Tyr Phe Gly  
Leu Arg Ile Leu Leu Arg Ser Arg Leu Leu Thr Arg \*\*\* Ser Gly Ile Leu Val

FIG. 2a

2

APPROVED	O.G. FIG.	CLASS	SUBCLASS
	BY	424	20411
DRAFTSMAN			



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

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Gly Ser Gly Cys Arg Ser Leu Ser Leu Phe Arg Gly Ala Ser Tyr Leu Ile Ser  
Gly Ala Ala Val Asp Leu Phe Arg Phe Ser Gly Val Leu Leu Ile Phe Phe Val  
Ala Arg Gln Trp Met Ser Phe Ala Phe Pro Val Ser Trp Cys Phe Leu Ser Tyr

ACG GGC GAC GGT GTA GCT CTT TCG CTT TCC TTG GCT GGT CGT CTT ATT TCT TAT  
279 288 297 306 315 324  
TGC CCG CTG CCA CAT CGA GAA AGC GAA AGG AAC CGA CCA GCA GAA TAA AGA ATA

Cys Pro Leu Pro His Arg Glu Ser Glu Arg Asn Arg Pro Ala Glu \*\*\* Arg Ile  
Ala Arg Cys His Ile Glu Lys Ala Lys Gly Thr Asp Gln Gln Asn Lys Glu Tyr  
Pro Ala Ala Thr Ser Arg Lys Arg Lys Glu Pro Thr Ser Arg Ile Lys Asn Thr

Cys Tyr Leu Leu Gly Cys Val \*\*\* Arg Thr His Leu Glu Ala Ser Gly Pro Ser  
Ala Thr Phe Phe Ala Val Tyr Lys Asp Leu Thr Ser Ser Arg Pro Val Leu Pro  
Gln Leu Leu Ser Pro Trp Met Ser Ile Ser His Pro Ala Gly Arg Phe Trp Pro

GAC GTC ATT TCT TCC GGT GTA TGA ATA GCT CAC ACC TCG AGG CGC CTT GGT CCC  
333 342 351 360 369 378  
CTG CAG TAA AGA AGG CCA CAT ACT TAT CGA GTG TGG AGC TCC GCG GAA CCA GGG

Leu Gln \*\*\* Arg Arg Pro His Thr Tyr Arg Val Trp Ser Ser Ala Glu Pro Gly  
Cys Ser Lys Glu Gly His Ile Leu Ile Glu Cys Gly Ala Pro Arg Asn Gln Gly  
Ala Val Lys Lys Ala Thr Tyr Leu Ser Ser Val Glu Leu Arg Gly Thr Arg Gly

Ala Cys Arg Gly Thr \*\*\* Gln Gln Ser Tyr Gly Lys Pro Ser Pro Thr Lys Pro  
Leu Ala Ala Val Gln Arg Ser Ser His Thr Gly Lys Gln Leu Arg Pro Arg Gln  
Phe Arg Leu Ser Arg Asp Val Ala Thr Leu Val Arg Lys Ser Val Pro Asp Lys

CTT CGC GTC GCT GGA CAG ATG ACG ACA CTC ATG GGA AAA CCT CTG CCC CAG AAA  
387 396 405 414 423 432  
GAA GCG CAG CGA CCT GTC TAC TGC TGT GAG TAC CCT TTT GGA GAC GGG GTC TTT

Glu Ala Gln Arg Pro Val Tyr Cys Cys Glu Tyr Pro Phe Gly Asp Gly Val Phe  
Lys Arg Ser Asp Leu Ser Thr Ala Val Ser Thr Leu Leu Glu Thr Gly Ser Leu  
Ser Ala Ala Thr Cys Leu Leu Leu \*\*\* Val Pro Phe Trp Arg Arg Gly Leu Trp

Ser Gln Leu Arg Ala Thr Glu Gln Leu Thr His Ser Phe Asn Gly Arg Ala Pro  
His Ser Tyr Gly Leu Leu Lys Arg Tyr Arg Ile His Ser Ile Glu Ala Pro Gln  
Thr Val Thr Ala Ser Cys Asn Gly Thr Val Tyr Thr Leu Phe Lys Arg Pro Ser

CCA CTG ACA TCG GCT CGT CAA AGG ACA TTG CAT ACA CTC TTT AAA GGC GCC CGA  
441 450 459 468 477 486  
GGT GAC TGT AGC CGA GCA GTT TCC TGT AAC GTA TGT GAG AAA TTT CCG CGG GCT

Gly Asp Cys Ser Arg Ala Val Ser Cys Asn Val Cys Glu Lys Phe Pro Arg Ala  
Val Thr Val Ala Glu Gln Phe Pro Val Thr Tyr Val Arg Asn Phe Arg Gly Leu  
\*\*\* Leu \*\*\* Pro Ser Ser Phe Leu \*\*\* Arg Met \*\*\* Glu Ile Ser Ala Gly Trp

Gln Val Lys Ser Leu Ser Arg Ser Ser Ala Ala Ala His Asn Ser Ser Leu Gln  
Ser Phe Lys Gln Phe His Ala Pro Leu His Leu Leu Thr Ile Pro Leu Cys Ser  
Ala Ser Ser Lys Phe Thr Leu Pro Phe Ile Cys Cys Arg Ser Gln Phe Val Ala

CCG ACT TGA AAA CTT TCA CTC GCC CTT CTA CGT CGT CGC ACT AAC CTT CTG TCG  
495 504 513 522 531 540  
GGC TGA ACT TTT GAA AGT GAG CGG GAA GAT GCA GCA GCG TGA TTG GAA GAC AGC

Gly \*\*\* Thr Phe Glu Ser Glu Arg Glu Asp Ala Ala Ala \*\*\* Leu Glu Asp Ser  
Ala Glu Leu Leu Lys Val Ser Gly Lys Met Gln Gln Arg Asp Trp Lys Thr Ala  
Leu Asn Phe \*\*\* Lys \*\*\* Ala Gly Arg Cys Ser Ser Val Ile Gly Arg Gln Leu

FIG. 2b

3



Title: CIRCOVIRUS SEQUENCES  
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WEIGHT LOSS DISEASE (PWD)  
Inventors: Jestin et al.  
Appl. No.: 09/514,245

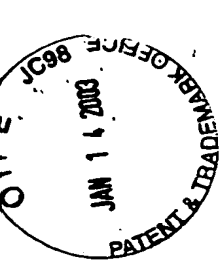
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APPROVED	O.G. FIG.	
	CLASS	SUBCLASS
BY	DRAFTSMAN	

Val Arg \*\*\* Leu Pro Gly Ala Arg Asn His Ser Ser Gly Thr Pro Gly Tyr Asn  
Tyr Val Asp Tyr His Ala Arg Gly Thr Thr Pro Leu Ala Leu Pro Gly Thr Ile  
Thr Cys Thr Met Thr Pro Gly Gly Pro Gln Pro Phe Leu Trp His Ala Arg Leu  
---  
ACA TGT GCA GTA TCA CCC GGG CGG GCC AAC ACC CTT CTC GGT CAC CCG GGC ATT  
549 558 567 576 585 594  
TGT ACA CGT CAT AGT GGG CCC GCC CGG TTG TGG GAA GAG CCA GTG GGC CCG TAA  
---  
Cys Thr Arg His Ser Gly Pro Ala Arg Leu Trp Glu Glu Pro Val Gly Pro \*\*\*  
Val His Val Ile Val Gly Pro Pro Gly Cys Gly Lys Ser Gln Trp Ala Arg Asn  
Tyr Thr Ser \*\*\* Trp Ala Arg Pro Val Val Gly Arg Ala Ser Gly Pro Val Ile  
---  
Gln Gln Ala \*\*\* Pro Cys Arg Ser Ser Ala \*\*\* Tyr Phe Tyr Thr Thr Pro His  
Lys Ser Leu Arg Pro Val Gly Val Pro Leu Arg Thr Ser Ile Leu Pro Pro Ile  
Lys Ala Ser Gly Leu Ser Val \*\*\* Gln Phe Gly Leu Leu Phe Leu His His Ser  
---  
AAA ACG ACT CGG ATC CCT GTG GAT GAC CTT CGG ATC ATC TTT ATT CAC CAC CCT  
603 612 621 630 639 648  
TTT TGC TGA GCC TAG GGA CAC CTA CTG GAA GCC TAG TAG AAA TAA GTG GTG GGA  
---  
Phe Cys \*\*\* Ala \*\*\* Gly His Leu Leu Glu Ala \*\*\* \*\*\* Lys \*\*\* Val Val Gly  
Phe Ala Glu Pro Arg Asp Thr Tyr Trp Lys Pro Ser Arg Asn Lys Trp Trp Asp  
Leu Leu Ser Leu Gly Thr Pro Thr Gly Ser Leu Val Glu Ile Ser Gly Gly Met  
---  
Ile Asp His Leu Leu Leu Gln Gln Lys Pro His Asn Lys His Ser Thr Val Lys  
Ser Ile Met Ser Phe Phe Asn Asn Asn Gln Ile Ile Lys Ile Ala Pro \*\*\* Arg  
Pro Tyr \*\*\* Pro Ser Ser Thr Thr Thr Lys Ser Ser Lys \*\*\* Pro Gln Asn Gly  
---  
ACC TAT AGT ACC TCT TCT TCA ACA ACA AAA CCT ACT AAA AAT ACC GAC CAA TGG  
657 666 675 684 693 702  
TGG ATA TCA TGG AGA AGA AGT TGT TGT TTT GGA TGA TTT TTA TGG CTG GTT ACC  
---  
Trp Ile Ser Trp Arg Arg Ser Cys Cys Phe Gly \*\*\* Phe Leu Trp Leu Val Thr  
Gly Tyr His Gly Glu Glu Val Val Val Leu Asp Asp Phe Tyr Gly Trp Leu Pro  
Asp Ile Met Glu Lys Lys Leu Leu Phe Trp Met Ile Phe Met Ala Gly Tyr Leu  
---  
Pro His Asp Val Ser Val Thr His Gly Thr Asp Met Ser Gln Leu Ser \*\*\* Leu  
Pro Ile Ile \*\*\* Gln Ser Gln Thr Val Pro Ile Trp Gln Ser Tyr Leu Ser Phe  
Gln Ser Ser Arg Ser Leu Ser His Ser Arg Tyr Gly Asn Val Thr Ser Val Leu  
---  
AAC CCT ACT AGA TGA CTC TGA CAC ACT GGC CAT AGG TAA CTG ACA TCT CTG ATT  
711 720 729 738 747 756  
TTG GGA TGA TCT ACT GAG ACT GTG TGA CCG GTA TCC ATT GAC TGT AGA GAC TAA  
---  
Leu Gly \*\*\* Ser Thr Glu Thr Val \*\*\* Pro Val Ser Ile Asp Cys Arg Asp \*\*\*  
Trp Asp Asp Leu Leu Arg Leu Cys Asp Arg Tyr Pro Leu Thr Val Glu Thr Lys  
Gly Met Ile Tyr \*\*\* Asp Cys Val Thr Gly Ile His \*\*\* Leu \*\*\* Arg Leu Lys  
---  
Pro Tyr Gln Glu Lys Lys Pro Gly Cys Tyr Lys Ser \*\*\* Trp Cys Asp Pro Gly  
Pro Thr Ser Asn Arg Lys Gln Gly Ala Thr Asn Gln Asn Gly Ala Ile Leu Gly  
Pro Pro Val Thr Gly Lys Lys Ala Arg Leu Ile Lys Ile Val Leu Leu \*\*\* Ala  
---  
TCC CCC ATG ACA AGG AAA AAA CCG GGC GTC ATA AAA CTA ATG GTC GTT AGT CCG  
765 774 783 792 801 810  
AGG GGG TAC TGT TCC TTT TTT GGC CCG CAG TAT TTT GAT TAC CAG CAA TCA GGC  
---  
Arg Gly Tyr Cys Ser Phe Phe Gly Pro Gln Tyr Phe Asp Tyr Gln Gln Ser Gly  
Gly Gly Thr Val Pro Phe Leu Ala Arg Ser Ile Leu Ile Thr Ser Asn Gln Ala  
Gly Val Leu Phe Leu Phe Trp-Pro-Ala-Val-Phe \*\*\* Leu Pro Ala Ile Arg Pro

FIG. 2c

4



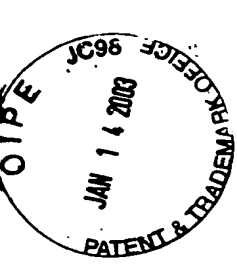
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APPROVED	O.G. FIG.	CLASS	SUBCLASS
	BY	DRAFTSMAN	

Gly Pro Ile Thr Ser Arg Leu Gln Gln Gly Leu Gln Leu Leu Glu Arg Asp Ser  
Gly Leu Phe Pro Val Gly \*\*\* Ser Ser Asp Trp Ser Tyr Phe Ser Glu Ile Pro  
Gly Trp Ser His Tyr Glu Glu Val Ala Thr Gly Ala Thr Ser Ala Arg \*\*\* Arg  
GGG GGT CCT TAC CAT GAG GAG TTG ACG ACA GGG TCG ACA TCT TCG AGA GAT AGC  
819 828 837 846 855 864  
CCC CCA GGA ATG GTA CTC CTC AAC TGC TGT CCC AGC TGT AGA AGC TCT CTA TCG  
Pro Pro Gly Met Val Leu Leu Asn Cys Cys Pro Ser Cys Arg Ser Ser Leu Ser  
Pro Gln Glu Trp Tyr Ser Ser Thr Ala Val Pro Ala Val Glu Ala Leu Tyr Arg  
Pro Arg Asn Gly Thr Pro Gln Leu Leu Ser Gln Leu \*\*\* Lys Leu Ser Ile Gly  
Ser \*\*\* \*\*\* Lys Ala Ile Lys Ser Ser Gln Gln Leu Val Ile Trp Pro Pro Val  
Pro Asn Ser Ser Gln Leu Lys Pro Leu Ser Ser Ser Phe Leu Gly Arg Leu Tyr  
Leu Ile Val Val Lys Cys Asn Gln Phe Val Ala Pro Ser Cys Asp Val Ser Thr  
CTC CTA ATG ATG AAA CGT TAA AAC CTT CTG ACG ACC TCT TGT TAG GTG CCT CCA  
873 882 891 900 909 918  
GAG GAT TAC TAC TTT GCA ATT TTG GAA GAC TGC TGG AGA ACA ATC CAC GGA GGT  
Glu Asp Tyr Tyr Phe Ala Ile Leu Glu Asp Cys Trp Arg Thr Ile His Gly Gly  
Arg Ile Thr Thr Leu Gln Phe Trp Lys Thr Ala Gly Glu Gln Ser Thr Glu Val  
Gly Leu Leu Leu Cys Asn Phe Gly Arg Leu Leu Glu Asn Asn Pro Arg Arg Tyr  
Arg Leu Gly Ile Gln Leu Leu Pro Gly Val Arg His Gly Lys Gly Met Tyr Phe  
Gly Phe Ala Ser Lys Phe Cys His Val Trp Gly Thr Gly Lys Glu Trp Ile Phe  
Gly Ser Pro Arg Asn Ser Ala Thr Ser Gly Gly Gln Ala Arg Lys Gly Tyr Leu  
TGG GCT TCC GGC TAA ACT TCG TCA CCT GGG TGG GAC ACG GGA AAA GGG TAT ATT  
927 936 945 954 963 972  
ACC CGA AGG CCG ATT TGA AGC AGT GGA CCC ACC CTG TGC CCT TTT CCC ATA TAA  
Thr Arg Arg Pro Ile \*\*\* Ser Ser Gly Pro Thr Leu Cys Pro Phe Pro Ile \*\*\*  
Pro Glu Gly Arg Phe Glu Ala Val Asp Pro Pro Cys Ala Leu Phe Pro Tyr Lys  
Pro Lys Ala Asp Leu Lys Gln Trp Thr His Pro Val Pro Phe Ser His Ile Lys  
Leu Asn Ser Leu Arg Lys Gln \*\*\* \*\*\* Met Thr Ile Thr Lys Ile Lys Ile \*\*\*  
Tyr Ile Val Ser Asp Lys Lys Asn Asp Cys Arg Leu Pro Lys \*\*\* Lys \*\*\* Glu  
Ile Phe \*\*\* Gln Thr Lys Lys Thr Ile Val Asp Tyr His Asn Lys Asn Lys Asn  
TTA TTT AAT GAC TCA GAA AAA ACA ATA GTG TAG CAT TAC CAA AAA TAA AAA TAA  
981 990 999 1008 1017 1026  
AAT AAA TTA CTG AGT CTT TTT TGT TAT CAC ATC GTA ATG GTT TTT ATT TTT ATT  
Asn Lys Leu Leu Ser Leu Phe Cys Tyr His Ile Val Met Val Phe Ile Phe Ile  
Ile Asn Tyr \*\*\* Val Phe Phe Val Ile Thr Ser \*\*\* Trp Phe Leu Phe Leu Phe  
\*\*\* Ile Thr Glu Ser Phe Leu Leu Ser His Arg Asn Gly Phe Tyr Phe Tyr Ser  
Lys Ser Pro Arg Glu Pro Tyr Ile Arg Gln Ile Thr Cys Leu Tyr Asp Val Lys  
Asn Leu Pro Asp Lys Leu Ile Phe Glu Arg Phe Gln Val Tyr Ile Thr Leu Arg  
Met \*\*\* Leu Thr Lys \*\*\* Ser Leu Asn Glu Ser Asn Tyr Met Phe Leu \*\*\* Gly  
GTA AAT CTC CCA GAA AGT CCT ATT TAA GAG ACT TAA CAT GTA TTT ATC AGT TGG  
1035 1044 1053 1062 1071 1080  
CAT TTA GAG GGT CTT TCA GGA TAA ATT CTC TGA ATT GTA CAT AAA TAG TCA ACC  
His Leu Glu Gly Leu Ser Gly \*\*\* Ile Leu \*\*\* Ile Val His Lys \*\*\* Ser Thr  
Ile \*\*\* Arg Val Phe Gln Asp Lys Phe Ser Glu Leu Tyr Ile Asn Ser Gln Pro  
Phe Arg Gly Ser Phe Arg Ile Asn Ser Leu Asn Cys Thr \*\*\* Ile Val Asn Leu

FIG. 2d

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Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWL)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

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Gly Cys Leu Lys Pro Ser His Asn Cys Lys Pro Ala Cys Leu Gly Pro Arg His  
Val Val Tyr Asn Gln Ala Thr Thr Ala Asn Gln Leu Ala Tyr Gly Leu Gly Thr  
\*\*\* Trp Met Ile Lys Pro Gln Pro Gln Met Lys Ser Arg Met Ala Trp Ala Gln  
AAT GGT GTA TTA AAA CCC GAC ACC AAC GTA AAA CCT CGC GTA TCG GGT CCG GAC  
1089 1098 1107 1116 1125 1134  
TTA CCA CAT AAT TTT GGG CTG TGG TTG CAT TTT GGA GCG CAT AGC CCA GGC CTG  
Leu Pro His Asn Phe Gly Leu Trp Leu His Phe Gly Ala His Ser Pro Gly Leu  
Tyr His Ile Ile Leu Gly Cys Gly Cys Ile Leu Glu Arg Ile Ala Gln Ala Cys  
Thr Thr \*\*\* Phe Trp Ala Val Val Ala Phe Trp Ser Ala \*\*\* Pro Arg Pro Val

Ala Arg Cys Gln His Pro Tyr Lys Phe Pro Ala Val Ala Pro Lys Lys \*\*\* \*\*  
His Glu Val Asn Thr His Thr Asn Leu His Leu Trp Leu Gln Asn Arg Lys Asn  
Thr Ser Ser Met Pro Thr Pro Ile \*\*\* Ile Ser Gly Cys Ser Thr Glu Lys Ile  
ACA CGA GCT GTA ACC ACA CCC ATA AAT TTA CCT CGG TGT CGA CCA AAG AAA ATA  
1143 1152 1161 1170 1179 1188  
TGT GCT CGA CAT TGG TGT GGG TAT TTA AAT GGA GCC ACA GCT GGT TTC TTT TAT  
Cys Ala Arg His Trp Cys Gly Tyr Leu Asn Gly Ala Thr Ala Gly Phe Phe Tyr  
Val Leu Asp Ile Gly Val Gly Ile \*\*\* Met Glu Pro Gln Leu Val Ser Phe Ile  
Cys Ser Thr Leu Val Trp Val Phe Lys Trp Ser His Ser Trp Phe Leu Leu Leu

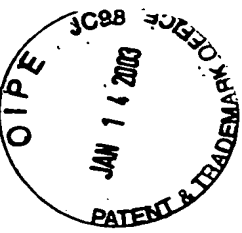
Lys Ala Pro Val Leu \*\*\* Asn Asn Pro Arg Ala Arg Thr Gln Pro His Leu Val  
Asn Pro Gln Phe Trp Asp Ile Thr Gln Asp Leu Glu Pro Lys Pro Thr Phe Tyr  
Ile Gln Ser Ser Gly Ile Leu Gln Lys Thr \*\*\* Ser Gln Asn Pro Pro Ser Thr  
ATA AAC CGA CCT TGG TTA GTT AAC AAA CCA GAT CGA GAC CAA ACC CCC ACT TCA  
1197 1206 1215 1224 1233 1242  
TAT TTG GCT GGA ACC AAT CAA TTG TTT GGT CTA GCT CTG GTT TGG GGG TGA AGT  
Tyr Leu Ala Gly Thr Asn Gln Leu Phe Gly Leu Ala Leu Val Trp Gly \*\*\* Ser  
Ile Trp Leu Glu Pro Ile Asn Cys Leu Val \*\*\* Leu Trp Phe Gly Gly Gly Val  
Phe Gly Trp Asn Gln Ser Ile Val Trp Ser Ser Ser Gly Leu Gly Val Lys Tyr

Gln Leu Pro Leu Tyr Leu Ala Ala Lys His His Pro Pro Leu Leu Leu \*\*\* Tyr  
Arg Ser His Tyr Thr Phe Pro Gln Arg Ile Thr His Arg Ser Ser Tyr Asn Ile  
Gly Pro Thr Thr Pro Leu Pro Ser Gly \*\*\* Pro Thr Ala Pro Pro Thr Thr Leu  
TGG ACC TCA CCA TCC ATT TCC CGA CGG AAT ACC ACA CCG CCC TCC TCA TCA ATT  
1251 1260 1269 1278 1287 1296  
ACC TGG AGT GGT AGG TAA AGG GCT GCC TTA TGG TGT GGC GGG AGG AGT AGT TAA  
Thr Trp Ser Gly Arg \*\*\* Arg Ala Ala Leu Trp Cys Gly Gly Arg Ser Ser \*\*\*  
Pro Gly Val Val Gly Lys Gly Leu Pro Tyr Gly Val Ala Gly Gly Val Val Asn  
Leu Glu Trp \*\*\* Val Lys Gly Cys Leu Met Val Trp Arg Glu Glu \*\*\* Leu Ile

Leu Pro \*\*\* Leu Gly Leu Gln His Leu Pro Asn Cys Leu Gln Cys Gly Leu Tyr  
Tyr Pro Asp Tyr Ala Leu Asn Thr Ser Pro Thr Val Phe Asn Ala Asp Leu Ile  
Ile Pro Thr Met Pro Trp Thr Pro Pro Pro Pro \*\*\* Leu Thr Pro Met Trp Ser  
ATA TCC CCA GTA TCC GGT TCA ACC ACC TCC CCC AAT GTT TCA ACC GTA GGT TCT  
1305 1314 1323 1332 1341 1350  
TAT AGG GGT CAT AGG CCA AGT TGG TGG AGG GGG TTA CAA AGT TGG CAT CCA AGA  
Tyr Arg Gly His Arg Pro Ser Trp Trp Arg Gly Leu Gln Ser Trp His Pro Arg  
Ile Gly Val Ile Gly Gln Val Gly Gly Gly Gly Tyr Lys Val Gly Ile Gln Asp  
\*\*\* Gly Ser \*\*\* Ala Lys Leu Val Glu Gly Val Thr Lys Leu Ala Ser Lys Ile

FIG. 2e

6



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

APPROVED	O.G. FIG.
	CLASS SUBCLASS
BY	DRAFTSMAN

Cys Cys His Val Trp Cys Arg Lys Ser \*\*\* Leu His His Pro Arg Gln Pro Leu  
Val Val Thr Ser Gly Val Gly Arg Gln Asn Ser Thr Ile Pro Asp Arg Pro Tyr  
Leu Leu Leu Pro Gly Leu Val Glu Lys Ile Leu Pro Ser Pro Thr Glu Pro Thr

ATT GTT GTC ACC TGG GTT GTG GAG AAA CTA ATC TCC ACT ACC CCA GAG ACC CCA  
1359 1368 1377 1386 1395 1404  
TAA CAA CAG TGG ACC CAA CAC CTC TTT GAT TAG AGG TGA TGG GGT CTC TGG GGT

Gln Gln Trp Thr Gln His Leu Phe Asp \*\*\* Arg \*\*\* Trp Gly Leu Trp Gly  
Asn Asn Ser Gly Pro Asn Thr Ser Leu Ile Arg Gly Asp Gly Val Ser Gly Val  
Thr Thr Val Asp Pro Thr Pro Leu \*\*\* Leu Glu Val Met Gly Ser Leu Gly \*\*\*

Ile \*\*\* Ile \*\*\* Gly Lys \*\*\* Tyr Pro Leu Ile Pro Phe Thr Pro Thr Pro Pro  
Phe Glu Tyr Lys Ala Lys Arg Ile Arg Tyr Tyr Gln Phe Pro Leu Pro Leu Pro  
Phe Asn Met Asn Leu Arg Glu Leu Val Thr Thr Asn Ser Leu Tyr Pro Tyr Pro

TTT TAA GTA TAA ATC GGA AAG ATT ATG CCA TCA TAA CCT TTC CAT CCC CAT CCC  
1413 1422 1431 1440 1449 1458  
AAA ATT CAT ATT TAG CCT TTC TAA TAC GGT AGT ATT GGA AAG GTA GGG GTA GGG

Lys Ile His Ile \*\*\* Pro Phe \*\*\* Tyr Gly Ser Ile Gly Lys Val Gly Val Gly  
Lys Phe Ile Phe Ser Leu Ser Asn Thr Val Val Leu Glu Arg \*\*\* Gly \*\*\* Gly  
Asn Ser Tyr Leu Ala Phe Leu Ile Arg \*\*\* Tyr Trp Lys Gly Arg Gly Arg Gly

Gln His Arg Arg Leu Pro Pro Pro Val Pro Arg His Gln Ile Glu Ala Arg \*\*\*  
Asn Thr Gly Gly Ser Pro Pro Leu Phe Gln Gly Ile Asn Phe Arg Leu Glu Asn  
Thr Pro Ala Ala Gln Pro Pro Ser Ser Ser Ala Ser Thr Ser Asp \*\*\* Ser Thr

CCA ACC ACG GCG GAC TCG CCC CCT CCT TGA CCG GCT ACA ACT TAG AGT CGA GCA  
1467 1476 1485 1494 1503 1512  
GGT TGG TGC CGC CTG AGG GGG GGA GGA ACT GGC CGA TGT TGA ATC TCA GCT CGT

Gly Trp Cys Arg Leu Arg Gly Gly Gly Thr Gly Arg Cys \*\*\* Ile Ser Ala Arg  
Val Gly Ala Ala \*\*\* Gly Gly Glu Glu Leu Ala Asp Val Glu Ser Gln Leu Val  
Leu Val Pro Pro Glu Gly Gly Arg Asn Trp Pro Met Leu Asn Leu Ser Ser Leu

Cys Glu Leu Ile Ala Ala Leu Thr Arg Arg Lys His His Thr Cys Ile Arg \*\*\*  
Val Asn Trp Ser Pro Gln Ser His Gly Gly Arg Ile Thr Leu Val Phe Glu Arg  
Leu Met Gly Leu His Ser Arg Thr Asp Glu Glu \*\*\* Pro Ser Tyr Leu Asn Glu

ATT GTA AGG TTC TAC CGA CGC TCA CAG GAG GAG AAT ACC ACT CAT GTT TAA GAG  
1521 1530 1539 1548 1557 1566  
TAA CAT TCC AAG ATG GCT GCG AGT GTC CTC CTC TTA TGG TGA GTA CAA ATT CTC

\*\*\* His Ser Lys Met Ala Ala Ser Val Leu Leu Leu Trp \*\*\* Val Gln Ile Leu  
Asn Ile Pro Arg Trp Leu Arg Val Ser Ser Ser Tyr Gly Glu Tyr Lys Phe Ser  
Thr Phe Gln Asp Gly Cys Glu Cys Pro Pro Leu Met Val Ser Thr Asn Ser Leu

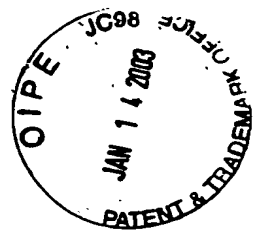
Phe Pro Pro Phe Gln Leu Tyr Gly Asp Lys Pro Ala Met Gln Leu Pro Lys Gln  
Ser Leu Arg Ser Asn Phe Ile Gly Thr Lys Arg Arg Trp Arg Tyr Arg Asn Arg  
Leu Phe Ala Pro Ile Ser Ser Val Arg Arg Glu Ala Gly Asp Thr Val Thr Glu

ATC TTT CCG CCC TTA ACT TCT ATG GGC AGA AAG CCG CGG TAG ACA TTG CCA AAG  
1575 1584 1593 1602 1611 1620  
TAG AAA GGC GGG AAT TGA AGA TAC CCG TCT TTC GGC GCC ATC TGT AAC GGT TTC

\*\*\* Lys Gly Gly Asn \*\*\* Arg Tyr Pro Ser Phe Gly Ala Ile Cys Asn Gly Phe  
Arg Lys Ala Gly Ile Glu Asp Thr Arg Leu Ser Ala Pro Ser Val Thr Val Ser  
Glu Arg Arg Glu Leu Lys Ile Pro Val Phe Arg Arg His Leu \*\*\* Arg Phe Leu

FIG. 2f

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Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

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TECH CENTER 1600/2900

APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY			
DRAFTSMAN			

Leu Arg Pro Thr Gly Phe Ile Thr Lys Glu Pro Pro His Lys Trp Ser Pro Gln  
Phe Ala Pro His Val Leu Tyr Pro Arg Arg Arg Leu Ile Asn Gly Leu His Ser  
Ser Pro Pro Thr Tyr Trp Ile His Asp Glu Gly Ser Ser Thr Glu Leu Ile Ala

ACT TCC GCC CCA CAT GGT TTA TAC CAG AAG AGG CCT CCT ACA AAG GTT CTA CCG  
1629 1638 1647 1656 1665 1674  
TGA AGG CGG GGT GTA CCA AAT ATG GTC TTC TCC GGA GGA TGT TTC CAA GAT GGC

\*\*\* Arg Arg Gly Val Pro Asn Met Val Phe Ser Gly Gly Cys Phe Gln Asp Gly  
Glu Gly Gly Val Tyr Gln Ile Trp Ser Ser Pro Glu Asp Val Ser Lys Met Ala  
Lys Ala Gly Cys Thr Lys Tyr Gly Leu Leu Arg Arg Met Phe Pro Arg Trp Leu

Pro Pro Pro Asp Thr Lys Gln Pro Leu Ala Glu Lys Ala Val Asp Asp \*\*\* Leu  
Arg Pro Arg Thr Arg Arg Arg Arg Tyr Arg Arg Arg Pro Trp Thr Met Arg Tyr  
Ala Pro Ala Pro Gly Asp Glu Ala Thr Val Gly Gly Gln Gly Arg \*\*\* Gly Ile

ACG CCC CCG CCC AGG CAG AAG ACG CCA TTG CGG AGG AAC CGG TGC AGT AGG ATA  
1683 1692 1701 1710 1719 1728  
TGC GGG GGC GGG TCC GTC TTC TGC GGT AAC GCC TCC TTG GCC ACG TCA TCC TAT

Cys Gly Gly Gly Ser Val Phe Cys Gly Asn Ala Ser Leu Ala Thr Ser Ser Tyr  
Ala Gly Ala Gly Pro Ser Ser Ala Val Thr Pro Pro Trp Pro Arg His Pro Ile  
Arg Gly Arg Val Arg Leu Leu Arg \*\*\* Arg Leu Leu Gly His Val Ile Leu \*\*\*

Leu Ser Leu Leu Ala Ser Ser Tyr Tyr  
Phe His Phe Phe His Ala Ala Thr Thr Asn  
Phe Thr Phe Ser Thr Arg Gln Gln Leu Ile

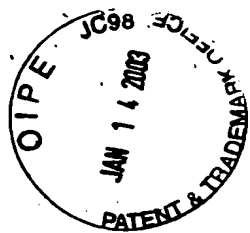
TTT TCA CTT TCT TCA CGC GAC GAC ATC ATA A 5'  
1737 1746 1755  
AAA AGT GAA AGA AGT GCG CTG CTG TAG TAT T 3'

Lys Ser Glu Arg Ser Ala Leu Leu \*\*\* Tyr  
Lys Val Lys Glu Val Arg Cys Cys Ser Ile  
Lys \*\*\* Lys Lys Cys Cys Ala Ala Val Val

FIG. 2g

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Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

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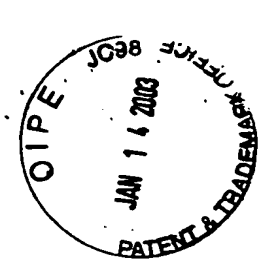
JAN 15 2003

TECH CENTER 1600/2900

APPROVED	O.G. FIG.	CLASS	SUBCLASS
	BY	DRAFTSMAN	

	10	20	30	40	50	
circopormank	1 ACCAGCGCAC	1 TTCGGCAGCG	1 GCAGCACCTC	1 GGCAGCGTCA	1 GTGAAAATGC	50
circopormeeh	1 ACCAGCGCAC	1 TTCGGCAGCG	1 GCAGCACCTC	1 GGCAGCGTCA	1 GTGAAAATGC	50
circopordfp	1 ACCAGCGCAC	1 TTCGGCAGCG	1 GCAGCACCTC	1 GGCAGCGTCA	1 GTGAAAATGC	50
	60	70	80	90	100	
circopormank	51 CAAGCAAGAA	51 AAGCGGCCCG	51 CAACCCCAT	51 AGAGGTGGGT	51 GTTCACCCCT	100
circopormeeh	51 CAAGCAAGAA	51 AAGCGGCCCG	51 CAACCCCAT	51 AGAGGTGGGT	51 GTTCACCCCT	100
circopordfp	51 CAAGCAAGAA	51 AAGCGGCCCG	51 CAACCCCAT	51 AGAGGTGGGT	51 GTTCACCCCT	100
	110	120	130	140	150	
circopormank	101 AATAATCCTT	101 CCGAGGAGGA	101 GAAAAACAAA	101 ATACGGGAGC	101 TTCCAATCTC	150
circopormeeh	101 AATAATCCTT	101 CCGAGGAGGA	101 GAAAAACAAA	101 ATACGGGAGC	101 TTCCAATCTC	150
circopordfp	101 AATAATCCTT	101 CCGAGGAGGA	101 GAAAAACAAA	101 ATACGGGAGC	101 TTCCAATCTC	150
	160	170	180	190	200	
circopormank	151 CCTTTTIGAT	151 TATTTTGTTC	151 GCGGAGAGGA	151 AGGTTTGGAA	151 GAGGGTAGAA	200
circopormeeh	151 CCTTTTIGAT	151 TATTTTGTTC	151 GCGGAGAGGA	151 AGGTTTGGAA	151 GAGGGTAGAA	200
circopordfp	151 CCTTTTIGAT	151 TATTTTGTTC	151 GCGGAGAGGA	151 AGGTTTGGAA	151 GAGGGTAGAA	200
	210	220	230	240	250	
circopormank	201 CTGCTCACCT	201 CCAGGGGTTT	201 GCTAATTTTG	201 CTAAGAAGCA	201 GACTTTTAAAC	250
circopormeeh	201 CTGCTCACCT	201 CCAGGGGTTT	201 GCTAATTTTG	201 CTAAGAAGCA	201 GACTTTTAAAC	250
circopordfp	201 CTGCTCACCT	201 CCAGGGGTTT	201 GCTAATTTTG	201 CTAAGAAGCA	201 GACTTTTAAAC	250
	260	270	280	290	300	
circopormank	251 AAGGTGAAGT	251 GGTATTTTGG	251 TGCCCGCTGC	251 CACATCGAGA	251 AAGCGAAAGG	300
circopormeeh	251 AAGGTGAAGT	251 GGTATTTTGG	251 TGCCCGCTGC	251 CACATCGAGA	251 AAGCGAAAGG	300
circopordfp	251 AAGGTGAAGT	251 GGTATTTTGG	251 TGCCCGCTGC	251 CACATCGAGA	251 AAGCGAAAGG	300
	310	320	330	340	350	
circopormank	301 AACCGACCAG	301 CAGAATAAAG	301 AATACTGCAG	301 TAAAGAAGGC	301 CACATACTTA	350
circopormeeh	301 AACCGACCAG	301 CAGAATAAAG	301 AATACTGCAG	301 TAAAGAAGGC	301 CACATACTTA	350
circopordfp	301 AACCGACCAG	301 CAGAATAAAG	301 AATACTGCAG	301 TAAAGAAGGC	301 CACATACTTA	350
	360	370	380	390	400	
circopormank	351 TCGAGTGTGG	351 AGCTCCGCGG	351 AACCAGGGGA	351 AGCGCAGCGA	351 CCTGTCTACT	400
circopormeeh	351 TCGAGTGTGG	351 AGCTCCGCGG	351 AACCAGGGGA	351 AGCGCAGCGA	351 CCTGTCTACT	400
circopordfp	351 TCGAGTGTGG	351 AGCTCCGCGG	351 AACCAGGGGA	351 AGCGCAGCGA	351 CCTGTCTACT	400
	410	420	430	440	450	
circopormank	401 GCTGTGAGTA	401 CCCTTTTGGG	401 GACGGGGTCT	401 TTGGTGACTG	401 TAGCCGAGCA	450
circopormeeh	401 GCTGTGAGTA	401 CCCTTTTGGG	401 GACGGGGTCT	401 TTGGTGACTG	401 TAGCCGAGCA	450
circopordfp	401 GCTGTGAGTA	401 CCCTTTTGGG	401 GACGGGGTCT	401 TTGGTGACTG	401 TAGCCGAGCA	450
	460	470	480	490	500	
circopormank	451 GTTCCCTGTA	451 ACGTATGTGA	451 GAAATTTCCG	451 CGGGCTGGCT	451 GAACTTTTGA	500
circopormeeh	451 GTTCCCTGTA	451 ACGTATGTGA	451 GAAATTTCCG	451 CGGGCTGGCT	451 GAACTTTTGA	500
circopordfp	451 GTTCCCTGTA	451 ACGTATGTGA	451 GAAATTTCCG	451 CGGGCTGGCT	451 GAACTTTTGA	500
	510	520	530	540	550	
circopormank	501 AAGTGAGCGG	501 GAAGATGCAG	501 CAGCGTGATT	501 GGAAGACAGC	501 TGTACACGTC	550
circopormeeh	501 AAGTGAGCGG	501 GAAGATGCAG	501 CAGCGTGATT	501 GGAAGACAGC	501 TGTACACGTC	550
circopordfp	501 AAGTGAGCGG	501 GAAGATGCAG	501 CAGCGTGATT	501 GGAAGACAGC	501 TGTACACGTC	550
	560	570	580	590	600	
circopormank	551 ATAGTGGGCC	551 CGCCCGGTTG	551 TGGGAAGAGC	551 CAGTGGGCCC	551 GTAATTTTGC	600
circopormeeh	551 ATAGTGGGCC	551 CGCCCGGTTG	551 TGGGAAGAGC	551 CAGTGGGCCC	551 GTAATTTTGC	600
circopordfp	551 ATAGTGGGCC	551 CGCCCGGTTG	551 TGGGAAGAGC	551 CAGTGGGCCC	551 GTAATTTTGC	600

FIG. 3a



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

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APPROVED	BY	DRAFTSMAN	O.G. FIG.	
			CLASS	SUBCLASS

circopormank	601	610	620	630	640	650	
circopormeeh	601	TGAGCCTAGG	GACACCTACT	GGAAGCCTAG	TAGAAATAAG	TGGTGGGATG	650
circopordfp	601	TGAGCCTAGG	GACACCTACT	GGAAGCCTAG	TAGAAATAAG	TGGTGGGATG	650
							650
circopormank	651	660	670	680	690	700	
circopormeeh	651	GATATCATGG	AGAAGAAGTT	GTTGTTTTGG	ATGATTTTFA	TGACTGGTTA	700
circopordfp	651	GATATCATGG	AGAAGAAGTT	GTTGTTTTGG	ATGATTTTFA	TGACTGGTTA	700
							700
circopormank	701	710	720	730	740	750	
circopormeeh	701	CCTTGGGATG	ATCTACTGAG	ACTGTGTGAC	CGGTATCCAT	TGACTGTAGA	750
circopordfp	701	CCTTGGGATG	ATCTACTGAG	ACTGTGTGAC	CGGTATCCAT	TGACTGTAGA	750
							750
circopormank	751	760	770	780	790	800	
circopormeeh	751	GACTAAAGGC	GGTACTGTTC	CTTTTTTGGC	ICGCAGTATT	TTGATTACCA	800
circopordfp	751	GACTAAAGGC	GGTACTGTTC	CTTTTTTGGC	ICGCAGTATT	TTGATTACCA	800
							800
circopormank	801	810	820	830	840	850	
circopormeeh	801	GCAATCAGGC	CCCCCAGGAA	TGGTACTCCT	CAACTGCTGT	CCCAGCTGTA	850
circopordfp	801	GCAATCAGGC	CCCCCAGGAA	TGGTACTCCT	CAACTGCTGT	CCCAGCTGTA	850
							850
circopormank	851	860	870	880	890	900	
circopormeeh	851	GAAGCTCTCT	ATCGGAGGAT	TACTACTTTG	CAATTTTGA	AGACTGCTGG	900
circopordfp	851	GAAGCTCTCT	ATCGGAGGAT	TACTACTTTG	CAATTTTGA	AGACTGCTGG	900
							900
circopormank	901	910	920	930	940	950	
circopormeeh	901	AGAACAATCA	ACGGAGGTAC	CCGAAGGCCG	ATTGAAGCA	GTGGAGCCAC	950
circopordfp	901	AGAACAATCC	ACGGAGGTAC	CCGAAGGCCG	ATTGAAGCA	GTGGAGCCAC	950
							950
circopormank	951	960	970	980	990	1000	
circopormeeh	951	CCTGTGCCCT	TTTCCCATAT	AAAATAAATT	ACTGAGTCTT	TTTGTATTATC	1000
circopordfp	951	CCTGTGCCCT	TTTCCCATAT	AAAATAAATT	ACTGAGTCTT	TTTGTATTATC	1000
							1000
circopormank	1001	1010	1020	1030	1040	1050	
circopormeeh	1001	ACATCGTAAT	GGTTTTTATT	TTTATTTATT	TAGAGGGTCT	TTTAGGATAA	1050
circopordfp	1001	ACATCGTAAT	GGTTTTTATT	TTTATTTATT	TAGAGGGTCT	TTTAGGATAA	1050
							1050
circopormank	1051	1060	1070	1080	1090	1100	
circopormeeh	1051	ATTCTCTGAA	TTGTACATAA	ATAGTCAGCC	TTACCACATA	ATTTTGGGCT	1100
circopordfp	1051	ATTCTCTGAA	TTGTACATAA	ATAGTCAGCC	TTACCACATA	ATTTTGGGCT	1100
							1100
circopormank	1101	1110	1120	1130	1140	1150	
circopormeeh	1101	GTGGCTGCAT	TTTGGAGCGC	ATAGCCGAGG	CCTGTGTGCT	CGACATTGGT	1150
circopordfp	1101	GTGGCTGCAT	TTTGGAGCGC	ATAGCCGAGG	CCTGTGTGCT	CGACATTGGT	1150
							1150
circopormank	1151	1160	1170	1180	1190	1200	
circopormeeh	1151	GTGGGTATTT	AAATGGAGCC	ACAGCTGGTT	TCTTTTATTA	TTTGGGTGGA	1200
circopordfp	1151	GTGGGTATTT	AAATGGAGCC	ACAGCTGGTT	TCTTTTATTA	TTTGGGTGGA	1200
							1200

FIG. 3b

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Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

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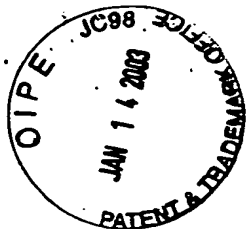
TECH CENTER 1600/2900

APPROVED	O.G. FIG.	CLASS	SUBCLASS
	BY	DRAFTSMAN	

		1210	1220	1230	1240	1250	
circopormank	1201	ACCAATCAAT	TGTTTGGTCC	AGCTCAGGTT	TGGGGGTGAA	GTACCTGGAG	1250
circopormeeh	1201	ACCAATCAAT	TGTTTGGTCC	AGCTCAGGTT	TGGGGGTGAA	GTACCTGGAG	1250
circopordfp	1201	ACCAATCAAT	TGTTTGGTCT	AGCTCTCGTT	TGGGGGTGAA	GTACCTGGAG	1250
		1260	1270	1280	1290	1300	
circopormank	1251	TGGTAGGTAA	AGGGCTGCCT	TATGGTGTGG	CGGGAGGAGT	AGTTAATATA	1300
circopormeeh	1251	TGGTAGGTAA	AGGGCTGCCT	TATGGTGTGG	CGGGAGGAGT	AGTTAATATA	1300
circopordfp	1251	TGGTAGGTAA	AGGGCTGCCT	TATGGTGTGG	CGGGAGGAGT	AGTTAATATA	1300
		1310	1320	1330	1340	1350	
circopormank	1301	GGGGTCATAG	GCCAAGTTGG	TGGAGGGGGT	TACAAAGTTG	GCATCCAAGA	1350
circopormeeh	1301	GGGGTCATAG	GCCAAGTTGG	TGGAGGGGGT	TACAAAGTTG	GCATCCAAGA	1350
circopordfp	1301	GGGGTCATAG	GCCAAGTTGG	TGGAGGGGGT	TACAAAGTTG	GCATCCAAGA	1350
		1360	1370	1380	1390	1400	
circopormank	1351	TAACAACAGT	GGACCCAACA	CCTCTTTGAT	TAGAGGTGAT	GGGGTCTCTG	1400
circopormeeh	1351	TAACAACAGT	GGACCCAACA	CCTCTTTGAT	TAGAGGTGAT	GGGGTCTCTG	1400
circopordfp	1351	TAACAACAGT	GGACCCAACA	CCTCTTTGAT	TAGAGGTGAT	GGGGTCTCTG	1400
		1410	1420	1430	1440	1450	
circopormank	1401	GGGTAAAATT	CATATTTAGC	CTTTCTAATA	CGGTAGTATT	GGAAAGGTAG	1450
circopormeeh	1401	GGGTAAAATT	CATATTTAGC	CTTTCTAATA	CGGTAGTATT	GGAAAGGTAG	1450
circopordfp	1401	GGGTAAAATT	CATATTTAGC	CTTTCTAATA	CGGTAGTATT	GGAAAGGTAG	1450
		1460	1470	1480	1490	1500	
circopormank	1451	GGGTAGGGGG	TTGGTGCCGC	CTGAGGGGGG	GAGGAAGTGG	CCGATGTTGA	1500
circopormeeh	1451	GGGTAGGGGG	TTGGTGCCGC	CTGAGGGGGG	GAGGAAGTGG	CCGATGTTGA	1500
circopordfp	1451	GGGTAGGGGG	TTGGTGCCGC	CTGAGGGGGG	GAGGAAGTGG	CCGATGTTGA	1500
		1510	1520	1530	1540	1550	
circopormank	1501	ATCTCAGGTG	GTTAACATTC	CAAGATGGCT	GCGAGTATCC	TCCTTTTATG	1550
circopormeeh	1501	ATCTCAGGTG	GTTAACATTC	CAAGATGGCT	GCGAGTATCC	TCCTTTTATG	1550
circopordfp	1501	ATCTCAGGTC	GTTAACATTC	CAAGATGGCT	GCGAGTATCC	TCCTTTTATG	1550
		1560	1570	1580	1590	1600	
circopormank	1551	GTGAGTACAA	ATTCTCTAGA	AAGGCGGGAA	TTGAAGATAC	CCGTCTTTTCG	1600
circopormeeh	1551	GTGAGTACAA	ATTCTCTAGA	AAGGCGGGAA	TTGAAGATAC	CCGTCTTTTCG	1600
circopordfp	1551	GTGAGTACAA	ATTCTCTAGA	AAGGCGGGAA	TTGAAGATAC	CCGTCTTTTCG	1600
		1610	1620	1630	1640	1650	
circopormank	1601	CGGCCATCTG	TAACGGTTTC	TGAAGGCGGG	GTGTGCCAAA	TATGGTCTTC	1650
circopormeeh	1601	CGGCCATCTG	TAACGGTTTC	TGAAGGCGGG	GTGTGCCAAA	TATGGTCTTC	1650
circopordfp	1601	CGGCCATCTG	TAACGGTTTC	TGAAGGCGGG	GTGTGCCAAA	TATGGTCTTC	1650
		1660	1670	1680	1690	1700	
circopormank	1651	TCCGGAGGAT	GTTTCCAAGA	TGGCTGCGGG	GGCGGGTCCG	TCTTCTGCGG	1700
circopormeeh	1651	TCCGGAGGAT	GTTTCCAAGA	TGGCTGCGGG	GGCGGGTCCG	TCTTCTGCGG	1700
circopordfp	1651	TCCGGAGGAT	GTTTCCAAGA	TGGCTGCGGG	GGCGGGTCCG	TCTTCTGCGG	1700
		1710	1720	1730	1740	1750	
circopormank	1701	TAACGCCTCC	TTGGCCACGT	CATCCTATAA	AAGTGAAAGA	AGTGCGCTGC	1750
circopormeeh	1701	TAACGCCTCC	TTGGCCACGT	CATCCTATAA	AAGTGAAAGA	AGTGCGCTGC	1750
circopordfp	1701	TAACGCCTCC	TTGGCCACGT	CATCCTATAA	AAGTGAAAGA	AGTGCGCTGC	1750
		1760	1770	1780	1790	1800	
circopormank	1751	TGTAGTATT	.....	.....	.....	.....	1800
circopormeeh	1751	TGTAGTATT	.....	.....	.....	.....	1800
circopordfp	1751	TGTAGTATT	.....	.....	.....	.....	1800

FIG. 3c

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Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

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APPROVED	O.G. FIG.	
	CLASS	SUBCLASS
BY	DRAFTSMAN	

		10	20	30	40	50	
circopormank	1	NPSKKSGPOP	HKRWVFTLNN	PSEEEKNKIR	ELPISLFDYF	VCGEEGLEEG	50
circopormeeh	1	NPSKKSGPOP	HKRWVFTLNN	PSEEEKNKIR	ELPISLFDYF	VCGEEGLEEG	50
circopordfp[	1	NPSKKSGPOP	HKRWVFTLNN	PSEEEKNKIR	ELPISLFDYF	VCGEEGLEEG	50
		60	70	80	90	100	
circopormank	51	RTAHLOGFAN	FAKKOTFNKV	KWYFGARCHI	EKAKGTDQON	KEYCSKEGHI	100
circopormeeh	51	RTPHLOGFAN	FAKKOTFNKV	KWYFGARCHI	EKAKGTDQON	KEYCSKEGHI	100
circopordfp[	51	RTPHLOGFAN	FAKKOTFNKV	KWYFGARCHI	EKAKGTDQON	KEYCSKEGHI	100
		110	120	130	140	150	
circopormank	101	LIECGAPRNO	GKRSDELSTAV	STLLETGSLV	TVAEQFPVTV	VRNFRGLAEL	150
circopormeeh	101	LIECGAPRNO	GKRSDELSTAV	STLLETGSLV	TVAEQFPVTV	VRNFRGLAEL	150
circopordfp[	101	LIECGAPRNO	GKRSDELSTAV	STLLETGSLV	TVAEQFPVTV	VRNFRGLAEL	150
		160	170	180	190	200	
circopormank	151	LKVSQKMOOR	DWKTAVHVIV	GPPGCGKSOW	ARNFAEPSOT	YWKPSRNKWH	200
circopormeeh	151	LKVSQKMOOR	DWKTAVHVIV	GPPGCGKSOW	ARNFAEPROT	YWKPSRNKWH	200
circopordfp[	151	LKVSQKMOOR	DWKTAVHVIV	GPPGCGKSOW	ARNFAEPROT	YWKPSRNKWH	200
		210	220	230	240	250	
circopormank	201	DGYHGEEVVV	LDDFYGWLWP	DDLLRLCDRY	PLTVETKGGT	VPFLARSILI	250
circopormeeh	201	DGYHGEEVVV	LDDFYGWLWP	DDLLRLCDRY	PLTVETKGGT	VPFLARSILI	250
circopordfp[	201	DGYHGEEVVV	LDDFYGWLWP	DDLLRLCDRY	PLTVETKGGT	VPFLARSILI	250
		260	270	280	290	300	
circopormank	251	TSNOAPOEWY	SSTAVPAVEA	LYRRITTLQF	WKTAGEQSTE	VPEGRFEAVD	300
circopormeeh	251	TSNOAPOEWY	SSTAVPAVEA	LYRRITTLQF	WKTAGEQSTE	VPEGRFEAVD	300
circopordfp[	251	TSNOAPOEWY	SSTAVPAVEA	LYRRITTLQF	WKTAGEQSTE	VPEGRFEAVD	300
		310	320	330	340	350	
circopormank	301	PPCALFPYKI	NY	.....	.....	.....	350
circopormeeh	301	PPCALFPYKI	NY	.....	.....	.....	350
circopordfp[	301	PPCALFPYKI	NY	.....	.....	.....	350

FIG. 4



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWL)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

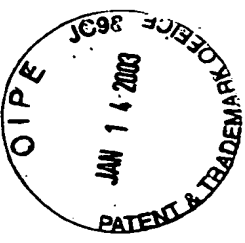
APPROVED BY DRAFTSMAN	O.G. FIG.	SUBCLASS
	CLASS	

		10	20	30	40	50	
circopormank	1	MTWPRRRYRR	RRTRPRSHLG	NILRRRPPYLA	HPAFRNRYRW	RRKTGIFNCR	50
circopormeeh	1	MTWPRRRYRR	RRTRPRSHLG	NILRRRPPYLA	HPAFRNRYRW	RRKTGIFNSR	50
circopordfp[	1	MTWPRRRYRR	RRTRPRSHLG	NILRRRPPYLV	HPAFRNRYRW	RRKTGIFNSR	50
		60	70	80	90	100	
circopormank	51	LSKEFVLTIK	GGYSOPSWIV	NILRFNIGOF	LPPSGGTNPL	PLPFOYYRIR	100
circopormeeh	51	LSKEFVLTIK	GGYSOPSWNV	NILRFNIGOF	LPPSGGTNPL	PLPFOYYRIR	100
circopordfp[	51	LSREFVLTIR	GGTSQPSWNV	NILRFNIGOF	LPPSGGTNPL	PLPFOYYRIR	100
		110	120	130	140	150	
circopormank	101	KAKYEFYPRD	PITSNERGVG	STVVILDANF	VTPSTNLAYD	PYINYSSRHT	150
circopormeeh	101	KAKYEFYPRD	PITSNORGVG	STVVILDANF	VTPSTNLAYD	PYINYSSRHT	150
circopordfp[	101	KAKYEFYPRD	PITSNORGVG	STVVILDANF	VTPSTNLAYD	PYINYSSRHT	150
		160	170	180	190	200	
circopormank	151	TROPFTYHSR	YFTPKPELDO	TIDWFHPNNK	RNQLWLHLNT	HTNVEHTGLG	200
circopormeeh	151	TROPFTYHSR	YFTPKPELDO	TIDWFHPNNK	RNQLWLHLNT	HTNVEHTGLG	200
circopordfp[	151	TROPFTYHSR	YFTPKPELDO	TIDWFQPNKK	RNQLWLHLNT	HTNVEHTGLG	200
		210	220	230	240	250	
circopormank	201	YALONAATAQ	NYVVRLTIYV	QFREFILKDP	LNK*	.....	250
circopormeeh	201	YALONAATAQ	NYVVRLTIYV	QFREFILKDP	LNK*	.....	250
circopordfp[	201	YALONATTAA	NYVVRLTIYV	QFREFILKDP	LNE*	.....	250

FIG. 5

		10	20	30	40	50	
circopormank	1	MISIPPLIST	RLPVGVARLS	KITGPLALPT	TGRAHYDVYS	CLPITLLHLP	50
circopormeeh	1	MISIPPLIST	RLPVGVPRLS	KITGPLALPT	TGRAHYDVYS	CLPITLLHLP	50
circopordfp[	1	MISIPPLIST	RLPVGVPRLS	KITGPEALPT	TGRAHYDVYS	CLPITLLHLP	50
		60	70	80	90	100	
circopormank	51	AHFQKFSOPA	EISHIRYREL	LGYSHORPRL	OKGTHSSROV	AALPLVPRSS	100
circopormeeh	51	AHFQKFSOPA	EISHIRYREL	LGYSHORPRL	OKGTHSSROV	AALPLVPRSS	100
circopordfp[	51	AHFQKFSOPA	EISHIRYRKL	LGYSHORPRL	OKGTHSSROV	AALPLVPRSS	100
		110	120	130	140	150	
circopormank	101	TLDKYVAFFT	AVFFILLVGS	FRFLDVAAGT	KIPLHLVKSL	LLSKIRKPLE	150
circopormeeh	101	TLDKYVAFFT	AVFFILLVGS	FRFLDVAAGT	KIPLHLVKSL	LLSKIRKPLE	150
circopordfp[	101	TLDKYVAFFT	AVFFILLVGS	FRFLDVAAGT	KIPLHLVKSL	LLSKIRKPLE	150
		160	170	180	190	200	
circopormank	151	VSSSTLFQTF	LSANKLIKKG	DWKLPYFVFL	LLGRIIKGEH	PPLMGLRAAF	200
circopormeeh	151	VRSSTLFQTF	LSANKLIKKG	DWKLPYFVFL	LLGRIIKGEH	PPLMGLRAAF	200
circopordfp[	151	VRSSTLFQTF	LATNKLIKKG	DWKLPYFVFL	LLGRIIKGEH	PPLMGLRAAF	200
		210	220	230	240	250	
circopormank	201	LAWHFFH*	.....	.....	.....	.....	250
circopormeeh	201	LAWHFFH*	.....	.....	.....	.....	250
circopordfp[	201	LAWHFFH*	.....	.....	.....	.....	250

FIG. 6



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)  
Inventors: Jestin et al.  
Appl. No.: 09/514,245

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APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

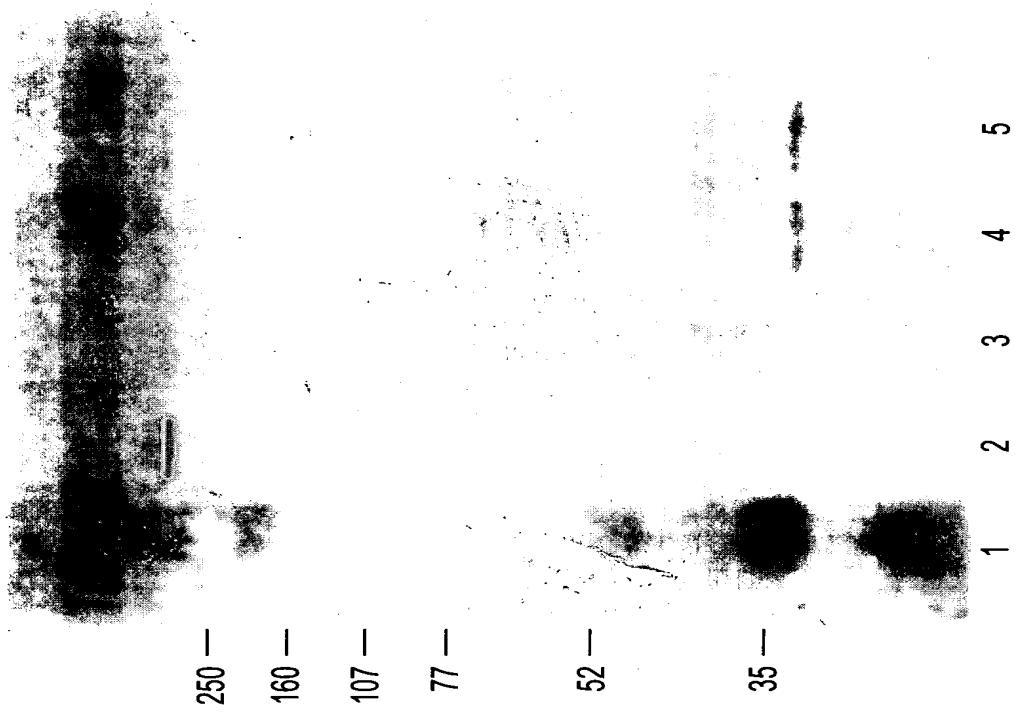
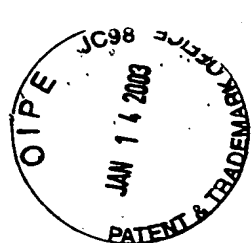


FIG. 7



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

APPROVED	O.G. FIG.	
	CLASS	SUBCLASS
BY	DRAFTSMAN	

Leu Ala Ser Arg Cys Arg Cys Cys Arg Pro Leu Val Glu Ala Ala Val His Gly  
Trp Arg Val Glu Ala Ala Ala Gly Arg Cys Cys Arg Leu Leu Leu Met Gly  
Gly Ala Cys Lys Pro Leu Pro Leu Val Glu Ala Ala Gly \*\*\* Cys Cys Cys Ala

3' TGG TCG CGT GAA GCC GTC GCC GTC GTG GAG CCG TCG TGG AGT CGT CGT TGT ACG  
9 18 27 36 45 54

5' ACC AGC GCA CTT CGG CAG CGG CAG CAC CTC GGC AGC ACC TCA GCA GCA ACA TGC

Thr Ser Ala Leu Arg Gln Arg Gln His Leu Gly Ser Thr Ser Ala Ala Thr Cys  
Pro Ala His Phe Gly Ser Gly Ser Thr Ser Ala Ala Pro Gln Gln Gln His Ala  
Gln Arg Thr Ser Ala Ala Ala Pro Arg Gln His Leu Ser Ser Asn Met Pro

Ala Leu Leu Ile Ser Ser Ala Ser Gly Leu Gly Met Phe Pro Pro His Glu Ser  
Leu Leu Phe Phe Pro Leu Leu Pro Gly Trp Gly Trp Leu Leu His Thr Asn Val  
Trp Cys Ser Ser His Phe Phe Arg Val Gly Val Gly Tyr Phe Thr Pro Thr \*\*\*

GGT CGT TCT TAC CTT CGC CTG GGG TTG GGG TAT TTT CCA CCC ACA AGT  
63 72 81 90 99 108  
CCA GCA AGA AGA ATG GAA GAA GCG GAC CCC AAC CCC ATA AAA GGT GGT TCA

Pro Ala Arg Arg Met Glu Glu Ala Asp Pro Asn Pro Ile Lys Gly Gly Cys Ser  
Gln Gln Glu Glu Trp Lys Lys Arg Thr Pro Thr Pro \*\*\* Lys Val Gly Val His  
Ser Lys Lys Asn Gly Arg Ser Gly Pro Gln Pro His Lys Arg Trp Val Phe Thr

Gln Ile Ile Arg Gly Phe Val Leu Ala Leu Phe Tyr Pro Ile Lys Trp Tyr Gly  
Arg Phe Leu Gly Glu Ser Ser Ser Arg Leu Phe Ile Arg Ser Arg Gly Ile Asp  
Glu Ser Tyr Asp Lys Arg Leu Arg Ala Cys Ser Phe Val Pro Asp Glu Leu Ile

GAG ACT TAT TAG GAA GGC TTC TGC TCG CGT TCT TTT ATG CCC TAG AAG GTT ATA  
117 126 135 144 153 162  
CTC TGA ATA ATC CTT CCG AAG ACG AGC GCA AGA AAA TAC GGG ATC TTC CAA TAT

Leu \*\*\* Ile Ile Leu Pro Lys Thr Ser Ala Arg Lys Tyr Gly Ile Phe Gln Tyr  
Ser Glu \*\*\* Ser Phe Arg Arg Arg Ala Gln Glu Asn Thr Gly Ser Ser Asn Ile  
Leu Asn Asn Pro Ser Glu Asp Glu Arg Lys Lys Ile Arg Asp Leu Pro Ile Ser

\*\*\* Lys Ile Ile Lys Asn Asn Ala Leu Leu Thr Ile Leu Phe Ser Ser Cys Arg  
Arg Ash Ser \*\*\* Lys Ile Thr Pro Ser Ser Pro Leu Ser Ser Pro Arg Val Gly  
Gly Ile Gln Asn Asn \*\*\* Gln Gln Arg Pro Pro Tyr His Pro Leu Val Phe Val

GGG ATA AAC TAA TAA AAT AAC AAC CGC TCC TCC CAT TAC TCC TTC CTG CTT GTG  
171 180 189 198 207 216  
CCC TAT TTG ATT ATT TTA TTG TTG GCG AGG AGG GTA ATG AGG AAG GAC GAA CAC

Pro Tyr Leu Ile Ile Leu Leu Leu Ala Arg Arg Val Met Arg Lys Asp Glu His  
Pro Ile \*\*\* Leu Phe Tyr Cys Trp Arg Gly Gly \*\*\* \*\*\* Gly Arg Thr Asn Thr  
Leu Phe Asp Tyr Phe Ile Val Gly Glu Glu Gly Asn Glu Glu Gly Arg Thr Pro

Val Glu Leu Pro Glu Ser Ile Lys His Leu Leu Leu Ser Lys Ile Phe His Leu  
\*\*\* Arg Trp Pro Asn Ala Leu Lys Thr Phe Phe Cys Val Lys Leu Leu Thr Phe  
Glu Gly Gly Pro Thr Arg \*\*\* Asn Gln Ser Ser Ala Ser Lys \*\*\* Tyr Leu Ser

GAG TGG AGG TCC CCA AGC GAT TAA AAC ACT TCT TCG TCT GAA AAT TAT TTC ACT  
225 234 243 252 261 270  
CTC ACC TCC AGG GGT TCG CTA ATT TTG TGA AGA AGC AGA CTT TTA ATA AAG TGA

Leu Thr Ser Arg Gly Ser Leu Ile Leu \*\*\* Arg Ser Arg Leu Leu Ile Lys \*\*\*  
Ser Pro Pro Gly Val Arg \*\*\* Phe Cys Glu Glu Ala Asp Phe \*\*\* \*\*\* Ser Glu  
His Leu Gln Gly Phe Ala Asn Phe Val Lys Lys Gln Thr Phe Asn Lys Val Lys

FIG. 8a

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Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

Pro Ile Gln Thr Gly Ala Ala Val Asp Leu Phe Arg Phe Ser Cys Ile Leu Leu  
His Tyr Lys Pro Ala Arg Gln Trp Met Ser Phe Ala Phe Pro Val Ser \*\*\* Cys  
Thr Thr Asn Pro His Gly Ser Gly Cys Arg Ser Leu Ser Leu Phe Leu Asp Ala

TCA CCA TAA ACC CAC GGG CGA CGG TGT AGC TCT TTC GCT TTC CTT GTC TAG TCG  
279 288 297 306 315 324  
AGT GGT ATT TGG GTG CCC GCT GCC ACA TCG AGA AAG CGA AAG GAA CAG ATC AGC

Ser Gly Ile Trp Val Pro Ala Ala Thr Ser Arg Lys Arg Lys Glu Gln Ile Ser  
Val Val Phe Gly Cys Pro Leu Pro His Arg Glu Ser Glu Arg Asn Arg Ser Ala  
Trp Tyr Leu Gly Ala Arg Cys His Ile Glu Lys Ala Lys Gly Thr Asp Gln Gln

Ile Phe Phe Val Ala Thr Phe Phe Ala Val \*\*\* Gln His Leu Thr Ser Ser Arg  
Phe Leu Ser Tyr Gln Leu Leu Ser Pro Leu Lys Ser His Ser His Pro Ala Gly  
Ser Tyr Leu Ile Ser Cys Tyr Leu Leu Cys Ser Val Ser Pro Thr His Leu Glu

TCT TAT TTC TTA TGA CGT CAT TTC TTC CGT TGA ATG ACT ACC TCA CAC CTC GAG  
333 342 351 360 369 378  
AGA ATA AAG AAT ACT GCA GTA AAG AAG GCA ACT TAC TGA TGG AGT GTG GAG CTC

Arg Ile Lys Asn Thr Ala Val Lys Lys Ala Thr Tyr \*\*\* Trp Ser Val Glu Leu  
Glu \*\*\* Arg Ile Leu Gln \*\*\* Arg Arg Gln Leu Thr Asp Gly Val Trp Ser Ser  
Asn Lys Glu Tyr Cys Ser Lys Glu Gly Asn Leu Leu Met Glu Cys Gly Ala Pro

Ser Arg Leu Ser Leu Pro Thr Val Gln Arg Ser Ser His Thr Gly Gln Gln Leu  
Leu Asp \*\*\* Pro Cys Arg Leu Ser Arg Asp Val Ala Thr Leu Val Lys Asn Ser  
\*\*\* Ile Glu Pro Val Val Ser His Gly Thr \*\*\* Gln Gln Ser Tyr Arg Thr Pro

GAT CTA GAG TCC CTG TTG CCT CAC TGG ACA GAT GAC GAC ACT CAT GGA ACA ACC  
387 396 405 414 423 432  
CTA GAT CTC AGG GAC AAC GGA GTG ACC TGT CTA CTG CTG TGA GTA CCT TGT TGG

Leu Asp Leu Arg Asp Asn Gly Val Thr Cys Leu Leu Leu \*\*\* Val Pro Cys Trp  
\*\*\* Ile Ser Gly Thr Thr Glu \*\*\* Pro Val Tyr Cys Cys Glu Tyr Leu Val Gly  
Arg Ser Gln Gly Gln Arg Ser Asp Leu Ser Thr Ala Val Ser Thr Leu Leu Glu

Ala Pro Thr Gln His Gly Asn Cys Leu Leu Val Arg Tyr Arg Lys Asp Ser Ile  
Leu Pro Leu Arg Thr Val Thr Ala Ser Cys Cys Gly Thr Val Asn Thr Leu Phe  
Ser Arg Ser Asp Pro Ser Arg Gln Leu Ala Ala Gly Gln Leu Thr Gln \*\*\* Phe

TCT CGC CCT CAG ACC ACT GGC AAC GTC TCG TCG TGG GAC ATT GCA AAC AGT CTT  
441 450 459 468 477 486  
AGA GCG GGA GTC TGG TGA CCG TTG CAG AGC AGC ACC CTG TAA CGT TTG TCA GAA

Arg Ala Gly Val Trp \*\*\* Pro Leu Gln Ser Ser Thr Leu \*\*\* Arg Leu Ser Glu  
Glu Arg Glu Ser Gly Asp Arg Cys Arg Ala Ala Pro Cys Asn Val Cys Gln Lys  
Ser Gly Ser Leu Val Thr Val Ala Glu Gln His Pro Val Thr Phe Val Arg Asn

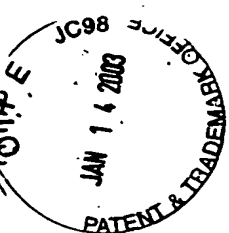
Glu Ala Pro Gln Ser Phe Lys Gln Phe His Ala Pro Phe His Leu Leu Thr Ile  
Lys Arg Pro Ser Ala Ser Ser Lys Phe Thr Leu Pro Phe Ile Cys Phe Arg Ser  
Asn Gly Arg Ala Pro Gln Val Lys Ser Leu Ser Arg Ser Phe Ala Ser Ala His

TAA AGG CGC CCG ACC GAC TTG AAA ACT TTC ACT CGC CCT TTT ACG TCT TCG CAC  
495 504 513 522 531 540  
ATT TCC GCG GGC TGG CTG AAC TTT TGA AAG TGA GCG GGA AAA TGC AGA AGC GTG

Ile Ser Ala Gly Trp Leu Asn Phe \*\*\* Lys \*\*\* Ala Gly Lys Cys Arg Ser Val  
Phe Pro Arg Ala Gly \*\*\* Thr Phe Glu Ser Glu Arg Glu Asn Ala Glu Ala \*\*\*  
Phe Arg Gly Leu Ala Glu Leu Leu Lys Val Ser Gly Lys Met Gln Lys Arg Asp

FIG. 8b





Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

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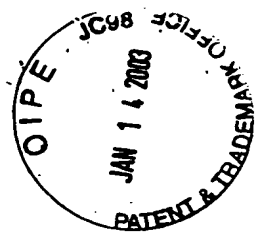
JAN 15 2003

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APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS

Pro Leu Ser Ile Tyr Val Asp Asn His Pro Trp Arg Pro Thr Thr Phe Ala Phe  
Gln Phe Val Leu Thr Cys Thr Met Thr Pro Gly Gly Pro His Pro Leu Leu Leu  
Asn Ser Ser \*\*\* His Val Arg \*\*\* Gln Pro Ala Val Gln Thr His Tyr Phe Cys  
TAA CCT TCT GAT TAC ATG TGC AGT AAC ACC CCG GTG GAC CCA CAC CAT TTT CGT  
549 558 567 576 585 594  
ATT GGA AGA CTA ATG TAC ACG TCA TTG TGG GGC CAC CTG GGT GTG GTA AAA GCA  
Ile Gly Arg Leu Met Tyr Thr Ser Leu Trp Gly His Leu Gly Val Val Lys Ala  
Leu Glu Asp \*\*\* Cys Thr Arg His Cys Gly Ala Thr Trp Val Trp \*\*\* Lys Gln  
Trp Lys Thr Asn Val His Val Ile Val Gly Pro Pro Gly Cys Gly Lys Ser Lys  
Pro Ser Ser Ile Lys Cys Val Arg Phe Gly Cys Val Pro Phe Trp Arg Ser Val  
His Ala Ala Leu Lys Ala Ser Gly Ser Val Val Tyr Gln Phe Gly Gly Leu Phe  
Ile Pro Gln \*\*\* Asn Gln Leu Gly Pro Phe Trp Met Ser Ser Val Val \*\*\* Phe  
TTA CCC GAC GAT TAA AAC GTC TGG GCC TTT GGT GTA TGA CCT TTG GTG GAT CTT  
603 612 621 630 639 648  
AAT GGG CTG CTA ATT TTG CAG ACC CGG AAA CCA CAT ACT GGA AAC CAC CTA GAA  
Asn Gly Leu Leu Ile Leu Gln Thr Arg Lys Pro His Thr Gly Asn His Leu Glu  
Met Gly Cys \*\*\* Phe Cys Arg Pro Gly Asn His Ile Leu Glu Thr Thr \*\*\* Lys  
Trp Ala Ala Asn Phe Ala Asp Pro Glu Thr Thr Tyr Trp Lys Pro Pro Arg Asn  
Leu Pro Pro Ile Thr Val Met Thr Phe Phe His Asn Asn Asn Ile Val Lys Ile  
Leu His His Ser Pro \*\*\* Trp Pro Ser Ser Thr Thr Thr Ile Ser Ser Lys \*\*\*  
Cys Thr Thr Pro His Asn Gly His His Leu Leu Pro Gln \*\*\* Gln His Ser Lys  
TGT TCA CCA CCC TAC CAA TGG TAC CAC TTC TTC ACC AAC AAT AAC TAC TGA AAA  
657 666 675 684 693 702  
ACA AGT GGT GGG ATG GTT ACC ATG GTG AAG AAG TGG TTG TTA TTG ATG ACT TTT  
Thr Ser Gly Gly Met Val Thr Met Val Lys Lys Trp Leu Leu Leu Met Thr Phe  
Gln Val Val Gly Trp Leu Pro Trp \*\*\* Arg Ser Gly Cys Tyr \*\*\* \*\*\* Leu Leu  
Lys Trp Trp Asp Gly Tyr His Gly Glu Glu Val Val Val Ile Asp Asp Phe Tyr  
Ala Pro Gln Gly Pro Ile Ile \*\*\* Gln Ser Gln Thr Ile Ser Ile Trp Gln Ser  
Pro Gln Ser Gly Gln Ser Ser Arg Ser Leu Ser His Ser Arg Tyr Gly Asn Val  
His Ser Ala Ala Arg Pro His Asp Val Ser Val Thr His Asp Ile Asp Met Ser  
TAC CGA CCG ACG GGA CCC TAC TAG ATG ACT CTG ACA CAC TAG CTA TAG GTA ACT  
711 720 729 738 747 756  
ATG GCT GGC TGC CCT GGG ATG ATC TAC TGA GAC TGT GTG ATC GAT ATC CAT TGA  
Met Ala Gly Cys Pro Gly Met Ile Tyr \*\*\* Asp Cys Val Ile Asp Ile His \*\*\*  
Trp Leu Ala Ala Leu Gly \*\*\* Ser Thr Glu Thr Val \*\*\* Ser Ile Ser Ile Asp  
Gly Trp Leu Pro Trp Asp Asp Leu Leu Arg Leu Cys Asp Arg Tyr Pro Leu Thr  
Tyr Leu Ser Phe Thr Ser Ser Tyr Arg Lys Gln Gly Ala Thr Asn Gln Asn Gly  
Thr Ser Val Leu Pro Pro Val Thr Gly Lys Lys Ala Arg Leu Ile Arg Ile Val  
Gln Leu Ser \*\*\* Leu His Phe Gln Val Lys Lys Pro Gly Cys Tyr Glu Ser \*\*\*  
GAC ATC TCT GAT TTC CAC CTT GAC ATG GAA AAA ACC GGG CGT CAT AAG ACT AAT  
765 774 783 792 801 810  
CTG TAG AGA CTA AAG GTG GAA CTG TAC CTT TTT TGG CCC GCA GTA TTC TGA TTA  
Leu \*\*\* Arg Leu Lys Val Glu Leu Tyr Leu Phe Trp Pro Ala Val Phe \*\*\* Leu  
Cys Arg Asp \*\*\* Arg Trp Asn Cys Thr Phe Phe Gly Pro Gln Tyr Ser Asp Tyr  
Val Glu Thr Lys Gly Gly Thr Val Pro Phe Leu Ala Arg Ser Ile Leu Ile Thr

FIG. 8c



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

APPROVED	O.G. FIG.	CLASS	SUBCLASS
	BY		

Ala Ile Leu Gly Arg Gln Phe Pro Val Gly \*\*\* Ser Ser Asp Trp Ser Tyr Phe  
Leu Leu \*\*\* Val Gly Asn Ser His Tyr Glu Glu Val Ala Thr Gly Ala Thr Ser  
Trp Cys Asp Ser Gly Thr Pro Ile Thr Ser Arg Leu Gln Gln Gly Leu Gln Leu

GGT CGT TAG TCT GGG GCA ACC TTA CCA TGA GGA GTT GAC GAC AGG GTC GAC ATC  
819 828 837 846 855 864  
CCA GCA ATC AGA CCC CGT TGG AAT GGT ACT CCT CAA CTG CTG TCC CAG CTG TAG

Pro Ala Ile Arg Pro Arg Trp Asn Gly Thr Pro Gln Leu Leu Ser Gln Leu \*\*\*  
Gln Gln Ser Asp Pro Val Gly Met Val Leu Leu Asn Cys Cys Pro Ser Cys Arg  
Ser Asn Gln Thr Pro Leu Glu Trp Tyr Ser Ser Thr Ala Val Pro Ala Val Glu

Ser Lys Ile Pro Pro Asn Ser Gly Gln Tyr Lys Pro Leu Ile Ser Cys Phe Leu  
Ala Arg \*\*\* Arg Leu Ile Val Glu Lys Thr Asn Gln Phe Phe Ala Val Ser Cys  
Leu Glu Lys Asp Ser Ser \*\*\* Lys Arg Pro Ile Lys Ser Ser His \*\*\* Leu Val

TTC GAG AAA TAG CCT CCT AAT GAA GGA ACC ATA AAA CCT TCT TAC GAT GTC TTG  
873 882 891 900 909 918  
AAG CTC TTT ATC GGA GGA TTA CTT CCT TGG TAT TTT GGA AGA ATG CTA CAG AAC

Lys Leu Phe Ile Gly Gly Leu Leu Pro Trp Tyr Phe Gly Arg Met Leu Gln Asn  
Ser Ser Leu Ser Glu Asp Tyr Phe Leu Gly Ile Leu Glu Glu Cys Tyr Arg Thr  
Ala Leu Tyr Arg Arg Ile Thr Ser Leu Val Phe Trp Lys Asn Ala Thr Glu Gln

Gly Arg Leu Phe Pro Ala Leu Glu Asp Gly Lys Gly Gly Trp Ala Arg Phe Lys  
Asp Val Ser Ser Pro Pro Trp Asn Thr Val Arg Glu Gly Gly His Gly Ser Asn  
Ile Trp Pro Pro Leu Pro Gly Thr Arg \*\*\* Gly Lys Gly Gly Met Gly Gln Ile

TTA GGT GCC TCC TTC CCC CGG TCA AGC AGT GGG AAA GGG GGG GTA CGG GAC TTA  
927 936 945 954 963 972  
AAT CCA CGG AGG AAG GGG GCC AGT TCG TCA CCC TTT CCC CCC CAT GCC CTG AAT

Asn Pro Arg Arg Lys Gly Ala Ser Ser Ser Pro Phe Pro Pro His Ala Leu Asn  
Ile His Gly Gly Arg Gly Pro Val Arg His Pro Phe Pro Pro Met Pro \*\*\* Ile  
Ser Thr Glu Glu Gly Gly Gln Phe Val Thr Leu Ser Pro Pro Cys Pro Glu Phe

Trp Ile Phe Tyr Ile Val Ser Asp Lys Lys Asp Ser Arg Leu Pro Lys \*\*\* \*\*\*  
Gly Tyr Ser Ile Phe \*\*\* Gln Thr Lys Lys Ile Val Glu Tyr His Asn Lys Asn  
Glu Met His Phe Leu Asn Ser Leu Arg Lys \*\*\* \*\*\* Lys Thr Ile Thr Lys Ile

AAG GTA TAC TTT ATT TAA TGA CTC AGA AAA AAT AGT GAA GCA TTA CCA AAA ATA  
981 990 999 1008 1017 1026  
TTC CAT ATG AAA TAA ATT ACT GAG TCT TTT TTA TCA CTT CGT AAT GGT TTT TAT

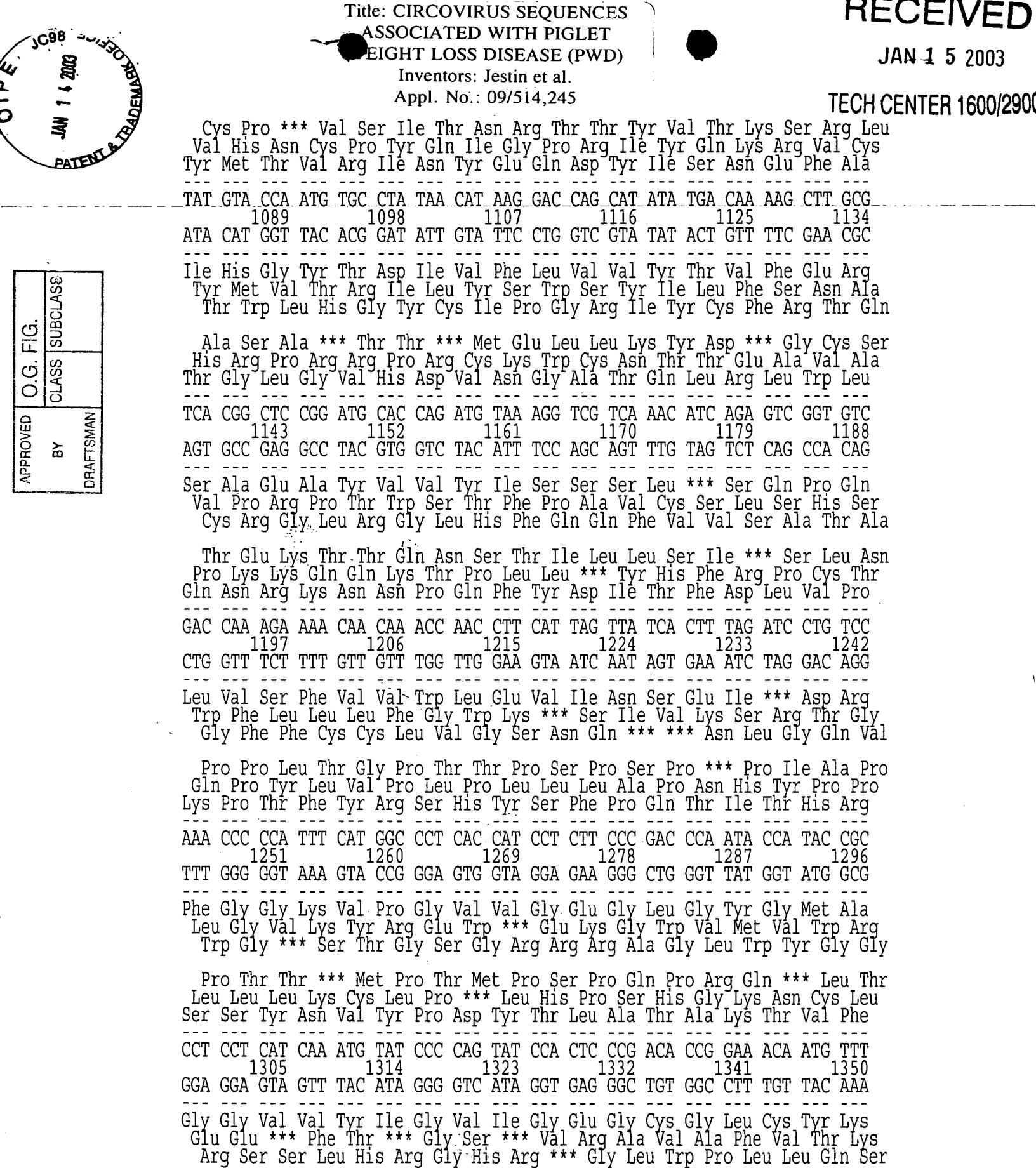
Phe His Met Lys \*\*\* Ile Thr Glu Ser Phe Leu Ser Leu Arg Asn Gly Phe Tyr  
Ser Ile \*\*\* Asn Lys Leu Leu Ser Leu Phe Tyr His Phe Val Met Val Phe Ile  
Pro Tyr Glu Ile Asn Tyr \*\*\* Val Phe Phe Ile Thr Ser \*\*\* Trp Phe Leu Leu

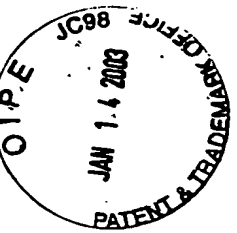
Glu Asn Leu Thr Leu His Pro Thr Lys Leu Ile Leu Asn Glu Ser Asn Tyr Met  
Asn Met Leu Pro \*\*\* Thr Pro Pro Arg \*\*\* Phe \*\*\* Ile Arg Gln Ile Thr Cys  
Ile \*\*\* \*\*\* Pro Asn Leu Pro Pro Asp Lys Phe Asn Phe Glu Arg Phe Gln Val

ATA AGT AAT TCC CAA TTC ACC CCC CAG AAA TTT TAA TTT AAG AGA CTT AAC ATG  
1035 1044 1053 1062 1071 1080  
TAT TCA TTA AGG GTT AAG TGG GGG GTC TTT AAA ATT AAA TTC TCT GAA TTG TAC

Tyr Ser Leu Arg Val Lys Trp Gly Val Phe Lys Ile Lys Phe Ser Glu Leu Tyr  
Ile His \*\*\* Gly Leu Ser Gly Gly Ser Leu Lys Leu Asn Ser Leu Asn Cys Thr  
Phe Ile Lys Gly \*\*\* Val Gly Gly Leu \*\*\* Asn \*\*\* Ile Leu \*\*\* Ile Val His

FIG. 8d





Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

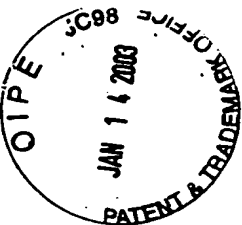
Inventors: Jestin et al.  
Appl. No.: 09/514,245

APPROVED	O.G. FIG.	SUBCLASS
	CLASS	
BY	DRAFTSMAN	

Ile Met \*\*\* Phe Leu Leu Val Pro Ala Trp Glu Gly Thr Val Arg Pro Ser Arg  
\*\*\* \*\*\* Arg Phe Tyr Cys Cys Gln Leu Gly Ser Gly Gln \*\*\* Gly Pro His Asp  
Asn Asp Asp Leu Ile Val Ala Ser Ser Gly Val Gly Arg Asp Gly Gln Thr Ile  
CAA TAG TAG ATT TTA TTG TCG TGA CCT CGG GTG AGG GGA CAG TGG GAC CCA CTA  
1359 1368 1377 1386 1395 1404  
GTT ATC ATC TAA AAT AAC AGC ACT GGA GCC CAC TCC CCT GTC ACC CTG GGT GAT  
Val Ile Ile \*\*\* Asn Asn Ser Thr Gly Ala His Ser Pro Val Thr Leu Gly Asp  
Leu Ser Ser Lys Ile Thr Ala Leu Glu Pro Thr Pro Leu Ser Pro Trp Val Ile  
Tyr His Leu Lys \*\*\* Gln His Trp Ser Pro Leu Pro Cys His Pro Gly \*\*\* Ser  
Pro Ala Pro Gly Ser Asn Leu Arg Leu Arg Glu \*\*\* Glu Thr Thr Asn Leu Pro  
Pro Leu Leu Ala Leu Ile \*\*\* Gly \*\*\* Gly Lys Lys Asn Gln Leu Ile \*\*\* Leu  
Pro Ser Cys Pro Trp Phe Glu Val Lys Val Lys Arg Ile Arg Tyr Tyr Glu Phe  
GCC CCT CGT CCC GGT CTT AAG TTG GAA TTG GAA AGA ATA AGA CAT CAT AAG TTT  
1413 1422 1431 1440 1449 1458  
CGG GGA GCA GGG CCA GAA TTC AAC CTT AAC CTT TCT TAT TCT GTA GTA TTC AAA  
Arg Gly Ala Gly Pro Glu Phe Asn Leu Asn Leu Ser Tyr Ser Val Val Phe Lys  
Gly Glu Gln Gly Gln Asn Ser Thr Leu Thr Phe Leu Ile Leu \*\*\* Tyr Ser Lys  
Gly Ser Arg Ala Arg Ile Gln Pro \*\*\* Pro Phe Leu Phe Cys Ser Ile Gln Arg  
Cys Leu Ala Pro Thr Gln Gly Gly Glu Gln Pro Phe Phe Thr Met Leu Ile Ser  
Ala Cys Leu Pro Pro Lys Val Gly Arg Arg Pro Ser Ser Leu \*\*\* \*\*\* Tyr Gln  
Pro Val Ser Arg Pro Asn Ser Gly Gly Gly Pro Pro Leu Phe Asp Asn Ile Asn  
CCC GTG TCT CGC CCC CAA ACT GGG GGG AGG ACC CCC TTC TTT CAG TAA TTA TAA  
1467 1476 1485 1494 1503 1512  
GGG CAC ACA GCG GGG GTT TGA CCC CCC TCC TGG GGG AGG AAA GTC ATT AAT ATT  
Gly His Arg Ala Gly Val \*\*\* Pro Pro Ser Trp Gly Lys Lys Val Ile Asn Ile  
Gly Thr Glu Arg Gly Phe Asp Pro Pro Pro Gly Gly Arg Lys Ser Leu Ile Leu  
Ala Gln Ser Gly Gly Leu Thr Pro Leu Leu Gly Glu Glu Ser His \*\*\* Tyr \*\*\*  
Asp \*\*\* \*\*\* Thr Trp Arg Gly Pro Pro Arg Glu Ser Gln Pro Glu Ser Ser Leu  
Ile Glu Asp His Gly Gly Gly Leu Leu Ala Asn Gln Ser His Asn Ala Gln Cys  
Phe Arg Met Met Asp Val Ala Trp Ser Pro Thr Arg Val Thr Thr Arg Lys Val  
CCT AGA GTA GTA CAG GTG GCG GGT CCT CCC GCA AGA CTG ACA CCA AGC GAA CTG  
1521 1530 1539 1548 1557 1566  
GAA TCT CAT CAT GTC CAC CGC CCA GGA GGG CGT TCT GAC TGT GGT TCG CTT GAC  
Glu Ser His His Val His Arg Pro Gly Gly Arg Ser Asp Cys Gly Ser Leu Asp  
Asn Leu Ile Met Ser Thr Ala Gln Glu Gly Val Leu Thr Val Val Arg Leu Thr  
Ile Ser Ser Cys Pro Pro Pro Arg Arg Ala Phe \*\*\* Leu Trp Phe Ala \*\*\* Gln  
Ile Asp Ser Pro Ala Pro Ser Ala Pro Thr Ser Ser Ala Met Lys Gly Glu Gly  
Tyr Ile Arg Leu His Pro Leu Pro Pro His Gln Leu His Trp Lys Glu Lys Glu  
Thr Tyr Gly Phe Thr Arg Ser Leu Arg Thr Asn Phe Ile Gly Asn Lys Arg Arg  
TCA TAT AGG CTT CCA CGC CCT CTC CGC CCA CAA CTT CTA CGG TAA AAA GGA AGA  
1575 1584 1593 1602 1611 1620  
AGT ATA TCC GAA GGT GCG GGA GAG GCG GGT GTT GAA GAT GCC ATT TTT CTT TCT  
Ser Ile Ser Glu Gly Ala Gly Glu Ala Gly Val Glu Asp Ala Ile Phe Pro Ser  
Val Tyr Pro Lys Val Arg Glu Arg Arg Val Leu Lys Met Pro Phe Phe Leu Leu  
Tyr Ile Arg Arg Cys Gly Arg Gly Gly Cys \*\*\* Arg Cys His Phe Ser Phe Ser

FIG. 8f

20



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

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Ala Thr Val Thr Ala Pro Thr Ser Ser Gly Pro Ala Ala Ala Ser Ser Arg Ala  
Leu Pro Leu Pro Pro Pro Pro Pro Arg Ala Leu Pro Pro Pro Pro Asp Pro  
Trp Arg Tyr Arg His Arg Pro His Val Leu Trp Pro Arg Arg Arg Leu Ile Gln

GGT CGC CAT TGC CAC CGC CCC CAC CTG CTC GGT CCC CGC CGC CTC CTA GAC  
1629 1638 1647 1656 1665 1674  
CCA GCG GTA ACG GTG GCG GGG GTG GAC GAG CCA GGG GCG GCG GCG GAG GAT CTG

Pro Ala Val Thr Val Ala Gly Val Asp Glu Pro Gly Ala Ala Ala Glu Asp Leu  
Gln Arg \*\*\* Arg Trp Arg Gly Trp Thr Ser Gln Gly Arg Arg Arg Arg Ile Trp  
Ser Gly Asn Gly Gly Gly Gly Gly Arg Ala Arg Gly Gly Gly Gly Ser Gly

Leu Ile Ala Ala Pro Ala Thr Asp Glu Glu Glu Thr Val Gly Gly Gln Ile Arg  
Trp Ser Pro Gln Pro Pro Pro Thr Lys Lys Lys Pro Leu Ala Glu Lys Ser Val  
Gly Leu His Ser Arg Pro Arg His Arg Arg Arg Arg Tyr Arg Arg Arg Pro Tyr

CGG TTC TAC CGA CGC CCC CGC CAC AGA AGA AGA AGC CAT TGC GGA GGA ACC TAT  
1683 1692 1701 1710 1719 1728  
GCC AAG ATG GCT GCG GGG GCG GTG TCT TCT TCT TCG GTA ACG CCT CCT TGG ATA

Ala Lys Met Ala Ala Gly Ala Val Ser Ser Ser Ser Val Thr Pro Pro Thr Ile  
Pro Arg Trp Leu Arg Gly Arg Cys Leu Leu Leu Arg \*\*\* Arg Leu Leu Gly Tyr  
Gln Asp Gly Cys Gly Gly Gly Val Phe Phe Phe Gly Asn Ala Ser Leu Asp Thr

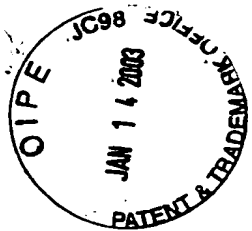
\*\*\* Ile Gln Phe Arg Phe Phe His Ala Thr Leu Ile  
Asp Tyr Arg Phe Val Phe Ser Thr Arg Gln Leu Tyr  
Thr Met Asp Ser Phe Ser Leu Leu Ala Ser Tyr Thr Asn

GCA GTA TAG ACT TTT GCT TTC TTC ACG CGA CAT TCA TAA 5'  
1737 1746 1755 1764  
CGT CAT ATC TGA AAA CGA AAG AAG TGC GCT GTA AGT ATT 3'

Arg His Ile \*\*\* Lys Arg Lys Lys Cys Ala Val Ser Ile  
Val Ile Ser Glu Asn Glu Arg Ser Ala Leu \*\*\* Val  
Ser Tyr Leu Lys Thr Lys Glu Val Arg Cys Lys Tyr

FIG. 8g

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Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

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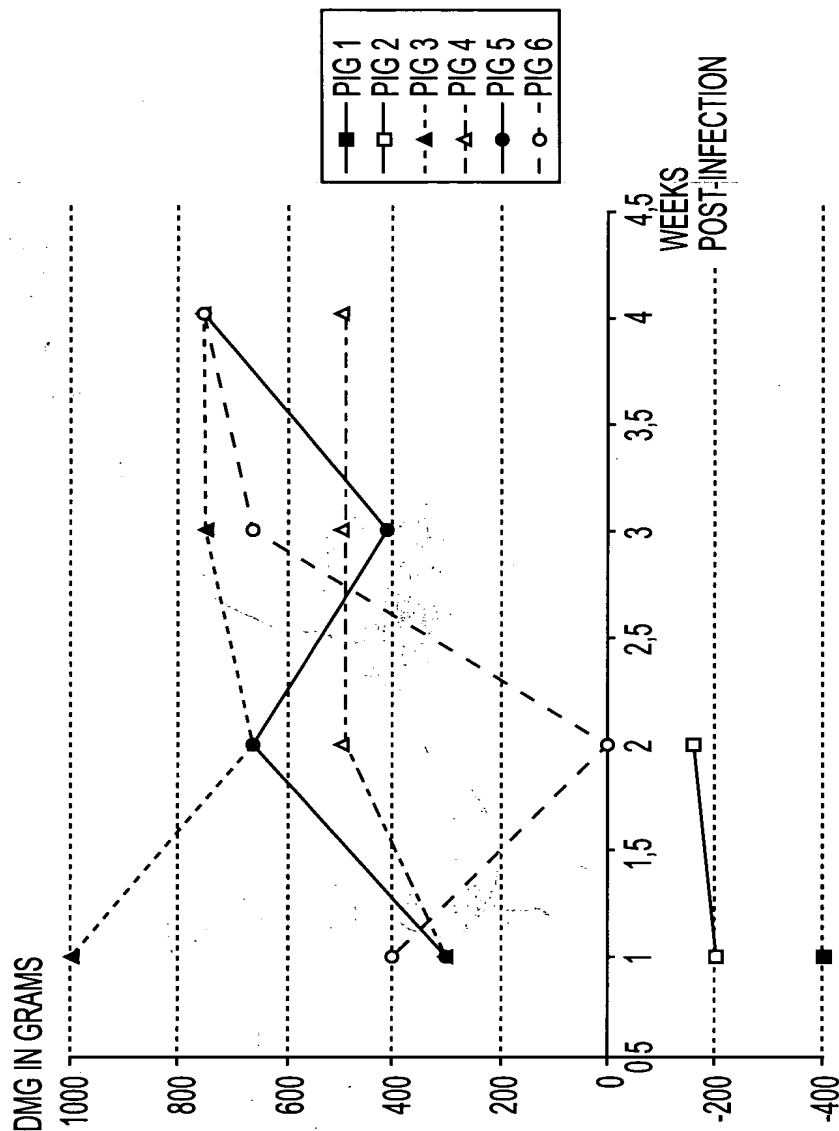
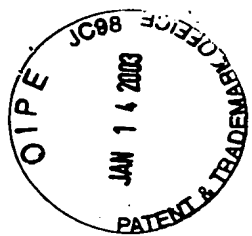


FIG. 9

22



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

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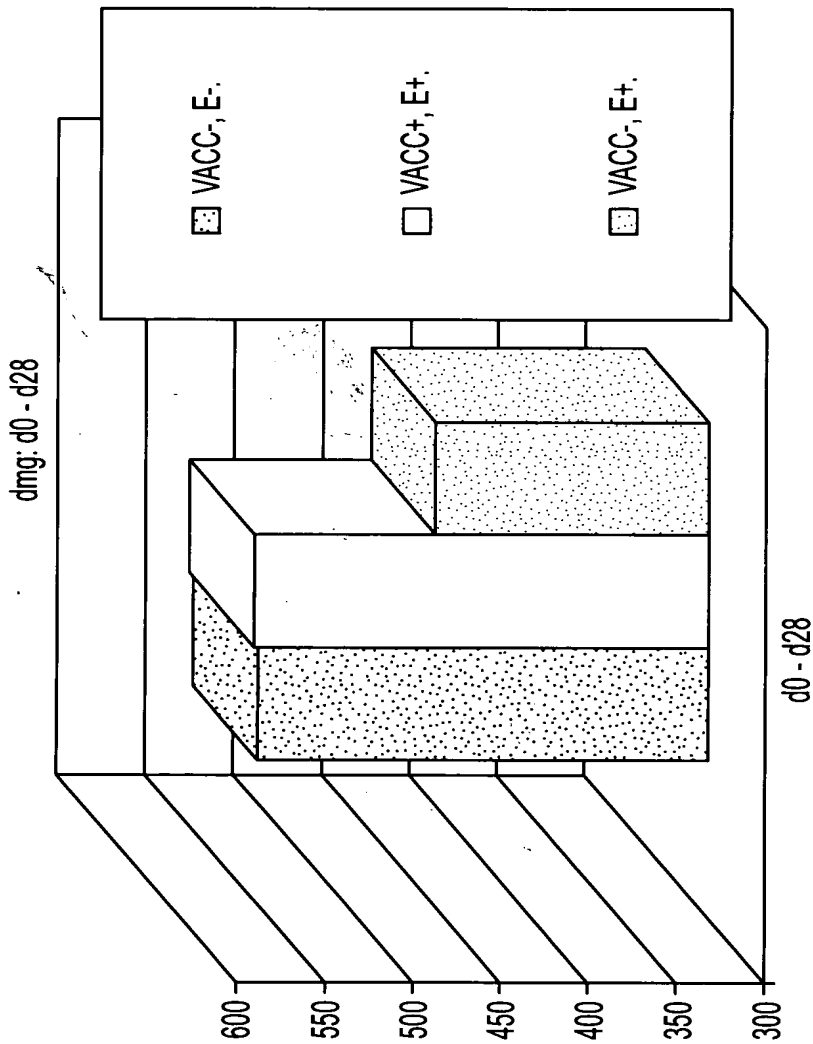
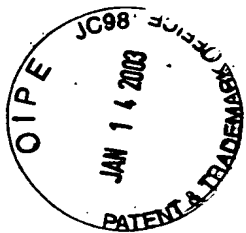


FIG. 10



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.  
Appl. No.: 09/514,245

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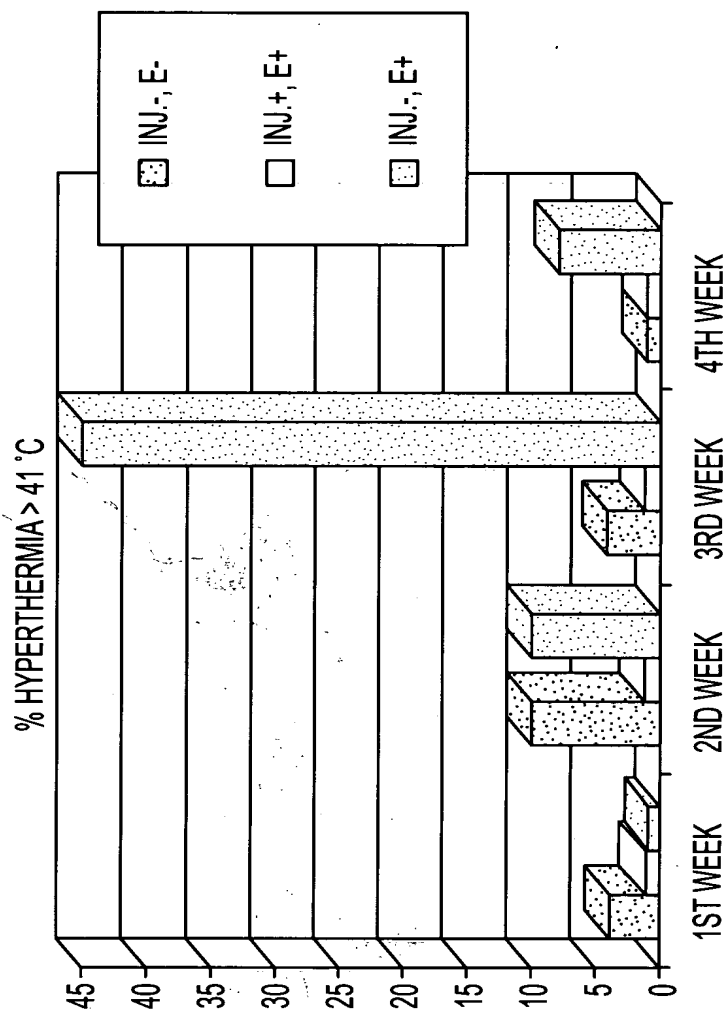
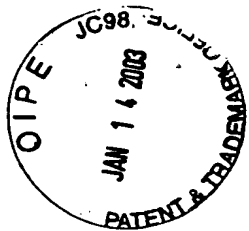


FIG. 11





Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

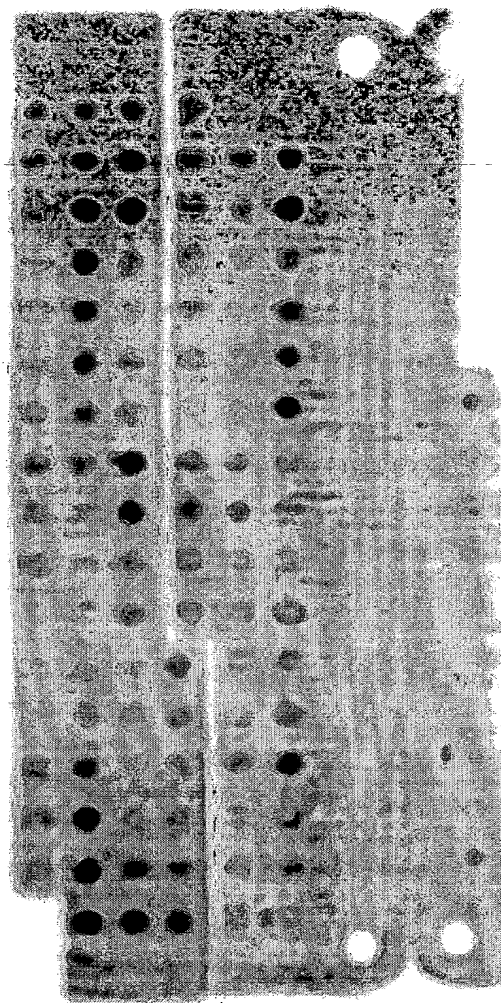
Inventors: Jestin et al.  
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TYPE B  
SPOT NO. 104 TO 159

TYPE A  
SPOT NO. 160 TO 215

FIG. 12

APPROVED	O.G. FIG.	
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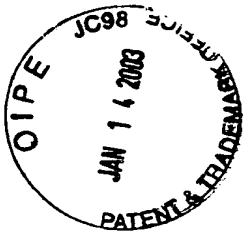


Title: CIRCOVIRUS SEQUENCES  
 ASSOCIATED WITH PIGLET  
 WEIGHT LOSS DISEASE (PWD)  
 Inventors: Jestin et al.  
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1 50 51  
 pcvA MTWPRRRYRR RRTRPRSHLG NILRRRPYL VHPAFRNYRW RRKTGIFNSR LSREFVLT I. RGGHSQPSWN  
 pcvB MTPYPRRRYRR RRHPRRSHLG QILRRRPWL VHP. RHYRW RRKNGIFNTR LSRTFGYTVK RTTVRTPSWA  
peptide 177 peptides 188 to 189  
 pcvA VNELRFNIGQ FLPPSGGTNP LPLPFQYRI RKAKYEFYPR DPITSNQRGV GSTVVILDAN FVTPSTNLAY  
 pcvB VDMMRFNIND FLPPGGGNSP RSVPFYRYI RKVKVEFWPC SPITQDGRGV GSSAVILDDN FVTKATALTY  
peptide 121 peptides 132 to 133  
 150 151 peptide 208  
 pcvA DPYINYSSRH TIRQPTYHS RYFTPKPELD QTIDWFQPNN KRNQLWLHLN THTNVEHTGL GYALQNATTA  
 pcvB DPYVNYSSRH TITQPFYSHS RYFTPKPVLD FTIDYFQPNN KRNQLWLRLQ TAGNVDHVGL GTAFENSIYD  
 235 peptide 152  
 pcvA QNYVVRLTIY VQFREIFLKD P.LNE  
 pcvB QEYNIRVTMY VQFRENFKD PPLNP

FIG. 13



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.  
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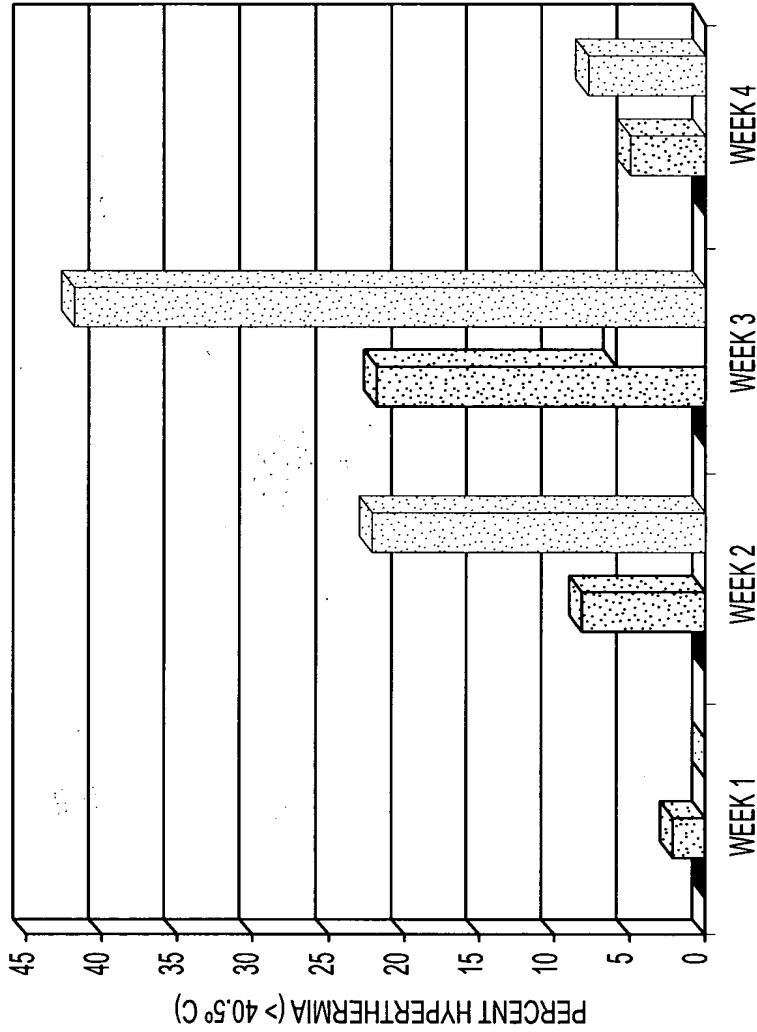
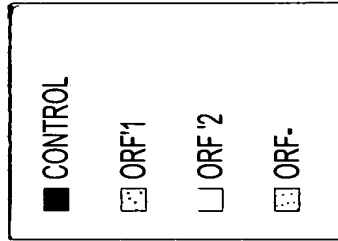
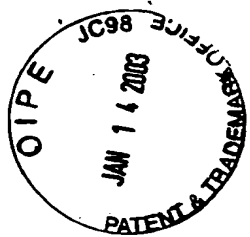


FIG. 14



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

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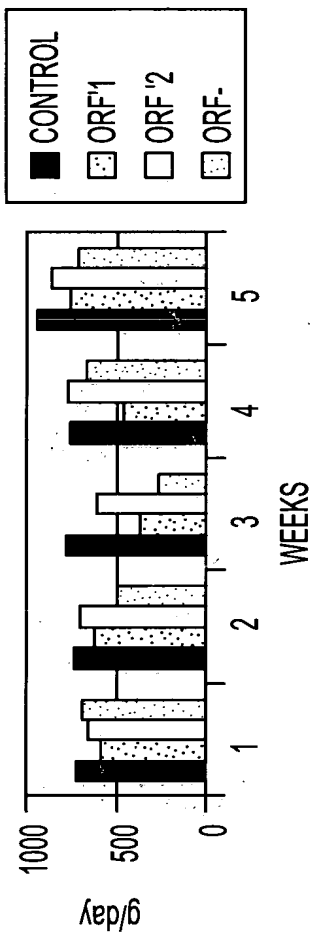
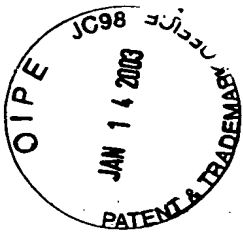


FIG. 15



Title: CIRCOVIRUS SEQUENCES  
ASSOCIATED WITH PIGLET  
WEIGHT LOSS DISEASE (PWD)

Inventors: Jestin et al.

Appl. No.: 09/514,245

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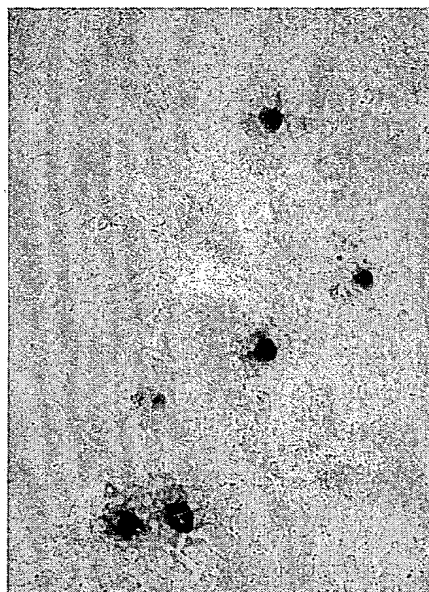


FIG. 16